Airport Collaborative Decision Making (A-CDM)
Variable Taxi Time (VTT)
Leaflet #6 – November 2016

Introduction:

Variable Taxi Time (VTT) is the estimated time that an aircraft spends taxiing between its parking stand and the active runway or vice versa. VTT is the generic name for both inbound and outbound taxi time parameters, used for calculation of Target Take Off Time (TTOT) or Target Start Up Approval Time (TSAT). Estimated Taxi In Time (EXIT) includes runway occupancy and ground movement time, whereas Estimated Taxi Out Time (EXOT) includes push back & start up time, ground movement, remote or apron de-icing, and runway holding times. The VTT will replace the existing standard taxi time used at Dublin Airport today, i.e. pre A-CDM.

The proposed ATC Pre Departure Sequencer (PDS) will use EXOT from individual stands using standard taxi routes and calculate TSATs and TTOT's with this information. Accurate taxi times are essential for calculating TTOT's and Calculated Take Off Time (CTOT). The PDS has the ability to adjust these taxi times (VTT's) based on taxiway closures, low visibility, busy and quiet periods of traffic, etc. Due to the complex layout at Dublin Airport, taxi times from certain stands at various times of the day can vary widely. The overall effect for ATC is to optimise the push back, taxi and take-off sequence and hence reduce queueing and taxiway congestion. CTOT compliance should continue to remain high as a result.

Benefits of VTT:

For arrivals, an EXIT, added to the Estimated / Actual Landing Time (ELDT / ALDT), will provide an accurate Estimate In Block Time (EIBT) which will be beneficial for stand and gate planning, pre-departure sequencing and ground handling resource management.

For departures, an EXOT added to the TSAT's will provide a TTOT which can then be used by the Network Manager to provide a realistic CTOT, if one is required. The flight profile within the Enhanced Tactical Flow Management System (ETFMS) will be updated and this will help optimise flow and capacity management of European air traffic.
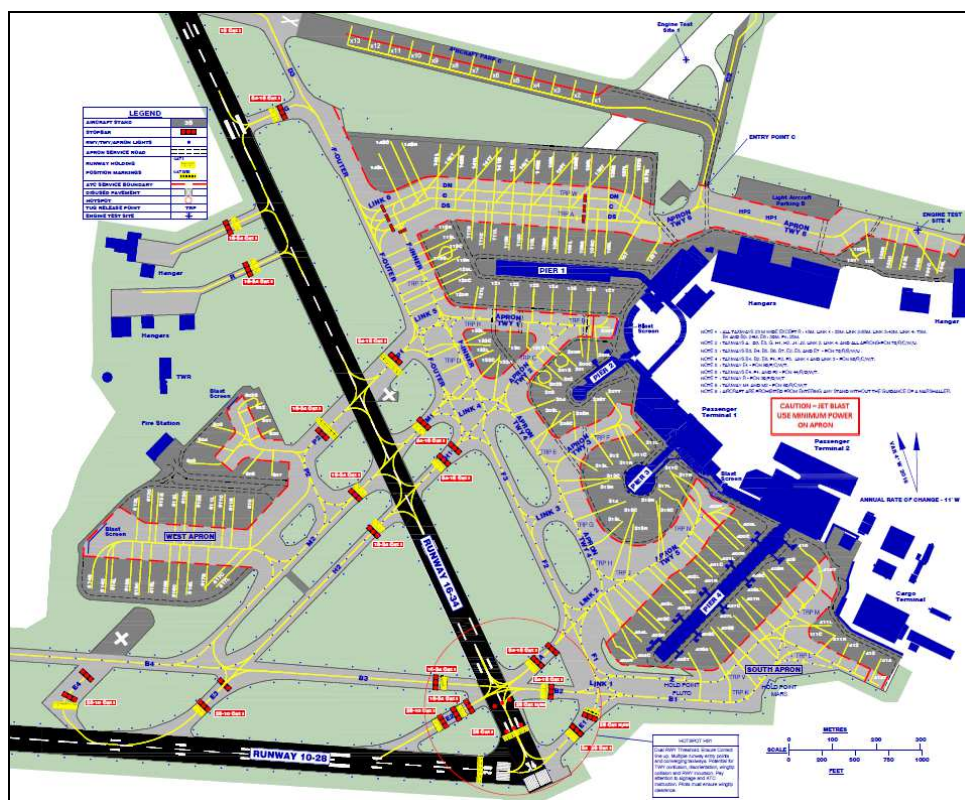

Image: Existing airfield layout at Dublin Airport, as of 16 September 2016.

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