Airport Collaborative Decision Making (A-CDM)
Pre-Departure Sequencer (PDS) & Electronic Flight Strip (EFS)
Leaflet #7 – November 2016

Pre-Departure Sequencer (PDS):

Pre-departure sequencing allows ATC to handle the Target Off-Block Times (TOBT) obtained from the turnaround process in a way that flights can depart from their stands in a more efficient and optimal order. Based on aircraft progress by using the TOBT, as well as the operational traffic situation on the aprons, taxiways and runways, ATC can provide a TSAT which places each aircraft in an efficient pre-departure sequence (off-blocks). This results in regulated traffic flows towards the runways rather than today's "first come first served" method.

Electronic Flight Strip (EFS):

The Electronic Flight Strip (EFS) system allows controllers to keep track of aircraft through inputs by the ATC controller, sending messages to the airport information sharing platform (AOS) and Network Manager Operations Centre (NMOC). These messages keep the airlines, handling agents, Dublin Airport and the NMOC up to date on the flight status, at certain A-CDM milestones in Dublin Airport.

Relationship between PDS, EFS, AOS & NMOC:

The most important information for the NMOC is knowing, when a particular flight is ready for departure, off-block and take-off. When a flight is ready for push & start, regardless of its Target Start up Approval Time (TSAT), the controller will make an input in the EFS. This information is sent to the AOS as the Actual Start-Up Request Time (ASRT). This information is also sent to the NMOC, who with this updated time, may be able to offer a better Calculated Take Off Time (CTOT), if that flight has a CTOT. The NMOC also uses this information to assess airspace and airport capacity. The controller will also input the Actual Start up Approval Time (ASAT), line-up and take-off functions on the EFS system. Again this information will be passed to AOS and to the NMOC.

Stand information is passed by the AOS to the EFS & PDS so controllers can see what stand aircraft are parked on and therefore plan a push back sequence. With the correct stand and TOBT information in the AOS, the Pre-Departure Sequencer will calculate the TSATs. The PDS will send TSATs to the EFS and AOS for each flight and calculate taxi times from each stand to provide a Target Take Off Time (TTOT). It must be remembered by the airlines and handling agents that the push back sequence will be based on TSAT and not on ready for start. As mentioned in previous leaflets, **it is very important that accurate and realistic TOBTs are input to the AOS by the airlines and handling agents.** The PDS can be adjusted by ATC to take into account the traffic situation, runway in use, runway capacity and queue lengths.
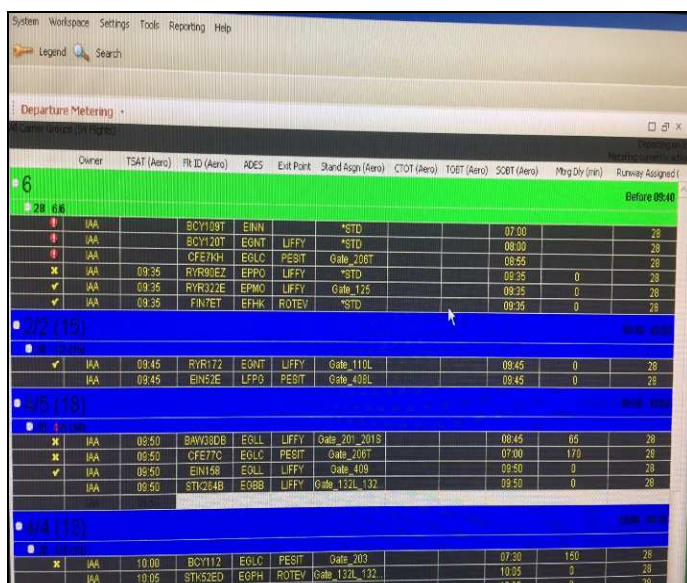

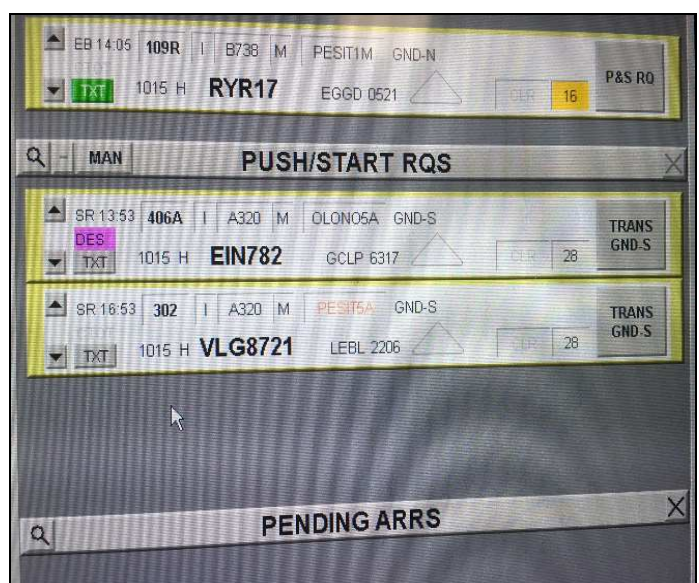**Image 1:** PDS image from a test environment (subject to change)

Image 2: EFS image from a test environment (subject to change)

Contact: A-CDM team at; A-CDM_Dublin@daa.ie
Webpage: https://www.dublinairport.com/regulation-and-planning/regulatory/airport-cdm
EUROCONTROL website: http://www.euro-cdm.org/