



## AF2 — Airport Integration and Throughput

*Airport Integration and Throughput facilitates the provision of approach and aerodrome control services by improving runway safety and throughput, enhancing taxi integration and safety and reducing hazardous situations on the runway.*

### Geographical Scope

Departure Management Synchronised with Pre-departure sequencing, Departure Management integrating Surface Management Constraints, Automated Assistance to Controller for Surface Movement Planning and Routing and Airport Safety Nets shall be operated at the following airports: London-Heathrow, Paris-CDG, London-Gatwick, Paris-Orly, London-Stansted, Milan-Malpensa, Frankfurt International, Madrid-Barajas, Amsterdam Schiphol, Munich Franz Josef Strauss, Rome-Fiumicino, Barcelona El Prat, Zurich Kloten (1), Düsseldorf International, Brussels National, Oslo Gardermoen (2), Stockholm-Arlanda, Berlin Brandenburg Airport, Manchester Ringway, Palma De Mallorca Son San Juan, Copenhagen Kastrup, Vienna Schwechat, Dublin, Nice Cote d'Azur.

Time-Based Separation for Final Approach shall be operated at the following airports: London-Heathrow, London-Gatwick, Paris-Orly, Milan-Malpensa, Frankfurt International, Madrid-Barajas, Amsterdam-Schiphol, Munich Franz Josef Strauss, Rome-Fiumicino, Zurich Kloten (1), Düsseldorf International, Oslo Gardermoen (2), Manchester Ringway, Copenhagen Kastrup, Vienna Schwechat, Dublin.

All sub-functionalities referred to in this AF should be operated at the Istanbul Ataturk Airport.

(1) Subject to incorporation of this Regulation into Agreement between the European Community and the Swiss Confederation on Air Transport.

(2) Subject to incorporation of this Regulation into EEA Agreement.

### Deployment Target Date

ATS providers and airport operators providing services at the airports as referred to in point the Geographical Scope shall operate:

Departure Management Synchronised with Pre-departure sequencing as from 1 January 2021

Departure Management integrating Surface Management Constraints as from 1 January 2021

Time-Based Separation for Final Approach as from 1 January 2024

Automated Assistance to Controller for Surface Movement Planning and Routing as from 1 January 2024

Airport Safety Nets as from 1 January 2021

### Need for Synchronisation

The deployment of Airport Integration and Throughput functionality shall be coordinated due to the potential network performance impact of delayed implementation in the targeted airports. From a technical perspective the deployment of targeted system and procedural changes shall be synchronised in order to ensure that the performance objectives are met. This synchronisation of investments shall involve multiple airport operators and air navigation service providers. Furthermore synchronisation during the related industrialisation phase shall take place, in particular among supply industry and standardisation bodies.

### Interdependencies with other ATM functionalities

- There are no interdependencies with other ATM functionalities
- The sub-functionalities Departure Management Synchronised with Pre-departure sequencing and Time Based Separation for Final Approach may be implemented independently from the other sub-functionalities; The implementation of the sub-functionalities Departure management integrating surface management constraints and Airport Safety Nets require the availability of the sub-functionality Automated assistance to controllers for surface movement planning and routing (A-SMGCS level 2+)

### Essential Prerequisites

The following prerequisites are required:

- Digital systems, such as EFS, A-CDM and initial DMAN for Departure Management Synchronised with Pre- departure sequencing
- Digital systems, such as EFS, initial DMAN and A-SMGCS level 1 & 2 for Departure Management integrating Surface Management Constraints
- Digital systems, such as EFS for TBS
- Digital systems, such as EFS and A-SMGCS level 1 & 2 for Automated Assistance to Controller for Surface Movement Planning and Routing
- Digital systems, such as EFS and A-SMGCS surveillance for Airport Safety Nets.

**PCP** ATM Sub-Functionalities

Code	Title	Related Elements
S-AF2.1	DMAN synchronised with Predeparture sequencing	SOL OI EN OBJ ICAO
S-AF2.2	DMAN integrating Surface Management Constraints	OI EN ICAO
S-AF2.3	Time-Based Separation for Final Approach	SOL OI EN OBJ ICAO
S-AF2.4	Automated Assistance to Controller for Surface Movement Planning and Routing	SOL OI EN OBJ ICAO
S-AF2.5	Airport Safety Nets	SOL OI EN OBJ ICAO