



# Capabilities

*The ability of one or more of the enterprise's resources to deliver a specified type of effect or a specified course of action to the enterprise stakeholders.*

| Title                                   | Description  | Related Elements |
|---|--|------------------|
| Aerodrome Operations                    | Aerodrome operations describe the aerodrome functionality within the ATM system in terms of such...  |                  |
| Airport Operations Management           | The ability to provide Facilities to support the Aircraft Turn Around between flights.               |                  |
| Airport Situational Awareness Provision | The ability to know about the current state of airport facilities, traffic situation (vehicles,...   |                  |
| Adverse Condition Operations Provision  | The ability to facilitate Landings, Ground movements and Departures in adverse weather conditions.   |                  |
| Ground Traffic Situational Awareness    | The ability to visualise the traffic situation on the ground through the position and...             |                  |
| Surface Condition Awareness             | The ability to determine the state of the airport surface (runway, taxiway) e.g. dry, wet,...        |                  |
| Surface Guidance and Routing            | The ability to provide guidance and routing to aircraft and other vehicles moving on the surface...  |                  |
| Aircraft Towing                         | The ability to tow aircraft.   |                  |
| Surface Guidance Provision              | The ability to provide guidance to aircraft and other vehicles moving on the surface of an...        |                  |
| Surface Route Management                | The ability to design, plan and allocate surface routes, including runway entry/exit points.         |                  |
| Airspace Organisation and Management    | Design and management of airspace structures (e.g. P/D/R,TSA/CBA, En Route/TMA Sectors, Free...      |                  |
| Airspace Design                         | The ability to design airspace structures to accommodate the different types of air activity,...     |                  |
| Airspace Classes Design                 | The ability to design and specify airspace classes.  |                  |
| Airspace Configuration Design           | The ability to design airspace sectors and sector configurations.                                    |                  |
| Airspace Reservation Design             | The ability to design airspace areas which can be temporarily reserved for certain categories of...  |                  |
| Arrival/Departure Route Design          | The ability to design and specify Arrival and Departure Routes.                                      |                  |
| En Route Network Design                 | The ability to design and specify Routes in En Route Airspace.                                       |                  |
| Free Route Airspace Design              | The ability to design a portion of airspace based upon user preferences (free route airspace).       |                  |
| Terminal Procedure Design               | The ability to design and specify departure, arrival and approach procedures (incl. final...         |                  |
| Airspace Management                     | The ability to maximise the use of a volume of airspace against the differing demands of users.      |                  |
| Airspace Configuration Management       | The ability to plan and allocate airspace configurations / sectors.                                  |                  |
| Airspace Reservation Management         | The ability to plan and allocate airspace areas for a specific purpose (e.g. Flexible Use of...      |                  |
| Arrival/Departure Routes Management     | The ability to allocate arrival and departure routes to flights.                                     |                  |
| Airspace User Operations                | Airspace user operations refer to the ATM-related aspect of flight operations.                       |                  |
| Execute Trajectory                      | The ability to execute Trajectory from TTA at origin or entry into ECAC Airspace to On Blocks at...  |                  |
| ATSAW-Spacing Monitoring Execution      | The ability to conduct airborne spacing monitoring under IFR operation.                              |                  |
| Airspace User Situational Awareness     | The ability to visualise own aircraft position and surrounding traffic information in context...     |                  |
| Optimised Climb Execution               | The ability to fly climb profiles which mitigate the effect of noise and atmospheric emissions.      |                  |
| Optimised Descent Execution             | The ability to fly optimised descent profiles which mitigate the effect of noise and atmospheric...  |                  |
| Optimised Take-Off / Landing Execution  | The ability to conduct take-off / landing operations which minimise the impact of adverse weather.   |                  |
| PinS Operations Execution               | The ability to conduct Point-In-Space operations.  |                  |
| RNP based Operations Execution          | The ability to fly RNP routes (En Route airspace, TMA airspace, low level IFR routes) and conduct... |                  |
| Runway Excursion Avoidance              | The ability to avoid runway excursions.  |                  |
| Flight Prioritisation                   | The ability to determine and allocate priorities in which flights will be handled by the ATC...      |                  |
| User Driven Prioritisation Process      | The ability to prioritise own flights when there is an imbalance between Demand and Capacity that... |                  |
| CNS                                     | The ability to combine and integrate Communication/Navigation/Surveillance techniques to deliver...  |                  |
| Communication                           | -  |                  |
| Navigation                              | -  |                  |
| Surveillance                            | -  |                  |

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|--|--|------------------|
| Conflict Management  | Conflict management includes strategic de-confliction, separation provision and collision...         |                  |
| Collision Avoidance  | The avoidance of collisions due to loss of separation of aircraft                                    |                  |
| Airspace Infringement Avoidance                                  | The avoidance of infringement into airspace by airborne vehicles not authorised or expected to...    |                  |
| Ground Collision Avoidance                                       | Prevention of aircraft collision during taxi or push-back (including collisions with parked...       |                  |
| Ground Proximity / Terrain Avoidance                             | The avoidance of collision with the terrain by an airborne vehicle.                                  |                  |
| Mid-Air Collision Avoidance                                      | The avoidance of collision between mobile airborne vehicles.   |                  |
| Separation Management  | Separation of Airborne Aircraft from other Aircraft, Airspace Infringements, Weather, Terrain.       |                  |
| Minimum Pair Separation Provision                                | The ability to apply reduced separation minima on longitudinal spacing between aircraft pairs.       |                  |
| Self-separation  | The ability to separate own aircraft from surrounding traffic.                                       |                  |
| Separation Provision (airspace)                                  | The ability to separate aircraft when airborne in line with the separation minima defined in the...  |                  |
| Separation Technique Management                                  | The ability to determine the appropriate separation technique for spacing aircraft and to...         |                  |
| Visual Separation  | The ability to maintain own separation during visual approach.                                       |                  |
| Wake Turbulence Separation Provision                             | The ability to provide separation between aircraft pairs which takes into account wake turbulence... |                  |
| Weather-Dependent Separation Provision                           | The ability to facilitate the provision of minimum spacing in favourable weather conditions...       |                  |
| Demand and Capacity Balancing                                    | Assessment and balancing of demand and capacity at network and airport level to provide the...       |                  |
| Demand and Capacity Balancing (airport)                          | The ability to evaluate airport demand and adjust airport assets to allow airspace users to meet...  |                  |
| Airport Capacity Information Provision (incl. Capacity Changes)  | The ability to monitor and determine the capacity (present, future) of an airport, including ad...   |                  |
| Collaborative Airport Management                                 | The ability to plan and execute airport operations involving all airport stakeholders and...         |                  |
| Dynamic Runway Allocation  | The selection of runway configurations and assignment of arrivals/departures to the active...        |                  |
| Dynamic Stand Allocation   | The dynamic allocation of stands.  |                  |
| Demand and Capacity Balancing (airspace)                         | The ability to evaluate traffic flows and adjust airspace resources to allow airspace users to...    |                  |
| Air Traffic Complexity Management                                | The ability to detect / anticipate / monitor air traffic complexity issues and solve the...          |                  |
| Air Traffic Demand Provision (Airspace)                          | The ability to determine the air traffic demand (present, future) in airspace.                       |                  |
| Air Traffic Flow Management                                      | The ability to detect / monitor demand capacity imbalances (present, future) in the airspace and...  |                  |
| Airspace Capacity Information Provision (incl. Capacity Changes) | The ability to determine the capacity (present, future) of airspace, including ad hoc changes due... |                  |
| Collaborative Network Management                                 | The ability to facilitate collaborative planning of ATM stakeholders' operations, support network... |                  |
| Crisis Management  | The ability to handle unplanned events outside of normal operating procedures.                       |                  |
| Target Time Management   | The ability to determine and allocate Target Times to flight (incl. Target Time of Arrival) in...    |                  |
| Information Management   | The provision of the right information to stakeholders at the time that it is needed.                |                  |
| ATM Data Management  | The ability to produce and distribute ATM data in support of virtualisation within the ATM domain.   |                  |
| ATM Data Provision in support of the Virtual Centre              | The ability to provide ATM data in support of the Virtual Centre.                                    |                  |
| Aeronautical and Meteorological Information Management           | The ability to provide accredited, quality assured and timely aeronautical information in support... |                  |
| Digitalised Aeronautical Information Provision                   | The ability to provide and exchange aeronautical information as digital data sets, in an...          |                  |
| Meteorological Observation and Forecasting Provision             | The ability to provide meteorological observations, forecast and warning information in support...   |                  |
| Information Infrastructure Management                            | The ability to provide an information infrastructure (incl. support/utility services) which...       |                  |
| Consolidated Meteorological Information Access                   | The ability to access / discover meteorological services consolidated from different sources.        |                  |
| SWIM-based Information Dissemination                             | The ability to exchange information in a SWIM environment according to defined SWIM standards.       |                  |
| Security Monitoring  | The ability to detect, collect and analyse cyber security incidents and consolidate a common...      |                  |
| Service Registration and Discovery                               | The ability to register and discover Services in a SWIM environment.                                 |                  |
| Information from/to other Essential Services                     | The provision of information to, or reception of information from other essential activities with... |                  |
| Service Delivery Management                                      | Management of the overall service delivery of ATM by balancing and consolidating the provision of... |                  |
| ATC Team Resource Management                                     | The ability to set ATM performance requirements, and measure/monitor performance outcomes.           |                  |

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|---|--|------------------|
| ATCO Team Operations Management                 | The ability to plan, allocate and monitor the organisation of control team so as to respond to...    |                  |
| Generic ATCO Validation                         | The ability for air traffic controllers to operate on any airspace volume of the same type.          |                  |
| Human Computer Interface (HCI) Design           | The ability to design human-computer interfaces which optimise air traffic controller-system...      |                  |
| ATM Service Management                          | The ability to plan, establish, manage and monitor service delivery from all service providers.      |                  |
| Data Centre Service Management                  | The ability to manage the delivery of Data Centre services in support of virtual centres.            |                  |
| E-AMAN Common Service Provision                 | The ability to provide Arrival Management service with an extended horizon (e.g. up to 180 - 200...  |                  |
| FIS Provision in Support of General Aviation    | The ability to manage the delivery of Flight Information Services for General Aviation.              |                  |
| Remote Tower Operations Provision               | The ability to provide a Tower ATM Operation service at an airfield from a location remote to the... |                  |
| Sub-regional DCB Common Service Management      | The ability to manage the delivery of Sub-regional DCB Common Service Provision Common Service.      |                  |
| Trajectory Prediction Common Service Management | The ability to manage the delivery of Trajectory Prediction Common Service Provision Common...       |                  |
| Trajectory Management                           | The ability for all parties to collaborate and agree a flight trajectory based upon the users...     |                  |
| CTA/CTO Management                              | The ability to manage ATM-imposed time constraints.  |                  |
| Clearance/Instruction Management                | The ability to deliver / execute clearances and instructions.  |                  |
| Collaborative Trajectory Planning               | The ability to reach an agreement on the trajectory to be facilitated by ATM.                        |                  |
| Coordination and Transfer                       | The ability to coordinate and transfer flights between sectors.                                      |                  |
| Trajectory Conformance Monitoring               | The ability to anticipate / detect deviations from trajectory agreement during execution.            |                  |
| Trajectory Information Synchronisation          | The ability to ensure / maintain a consistent view of the trajectory across ATM stakeholders...      |                  |
| Trajectory Revision in Execution                | The ability to revise the trajectory agreement during flight.  |                  |
| Traffic Synchronisation                         | Synchronisation of arrivals and departures with surface operations.                                  |                  |
| Sequencing and Merging                          | The ability to sequence and merge traffic.   |                  |
| Arrival Sequencing                              | The ability to create and operate an arrival sequence, incl. implementation and management of...     |                  |
| Arrival Traffic Merging                         | The ability to merge arrival traffic flows into entry points to destination airport.                 |                  |
| Departure Sequencing                            | The ability to create and operate a departure sequence.  |                  |
| Integrated Arrival/Departure Sequencing         | The ability to create and operate an integrated arrival / departure sequence.                        |                  |
| Interval Management (IM)                        | The ability to achieve and/or maintain an assigned spacing between one aircraft and the...           |                  |