



AOP24 — Optimised use of runway configuration for multiple runway airports

This Implementation Objective focuses on the Runway Manager (RMAN), a support tool for the Tower Supervisor to determine the optimal runway configuration and distribution of demand according to capacity and local constraints.

During the Medium/Short term Planning Phase, the RMAN tool checks the intentional demand versus the available capacity and it is capable of forecasting imbalances, raising alarms and alerts based on the indicators provided.

In the Execution Phase, the Runway Management tool monitors departure, arrival and overall delay and punctuality, in addition to the capacity shortage proposing changes if necessary.

Since the demand is continuously evolving along time, the RMAN continuously computes the optimal runway configuration and the associated Forecasted Landing (FLDT) and Take Off (FTOT) Times of arrival and departures flights that maximises the runway throughput.

As described before, in the same phase, the Integrated Runway Sequence function calculates Target Landing and Take-Off Times based on the flight plan information and considering the active runways.

The combination of the Runway Manager and the Integrated Runway Sequence has the aim of improving the punctuality of flights and reducing flight duration and average delay. The Forecasted Times calculated by the RMAN are provided to the Integrated Runway Sequence using them to calculate the final Target Times.

As a conclusion TLDT and TTOT calculated by the Integrated Sequence follows the Runway DCB Plan allowing the feedback to the RMAN to monitor the status of the Runway and to detect possible imbalances.

NOTE 1: This is an "Initial" objective to provide advance notice to stakeholders. Some aspects of the objective require further validation.

NOTE 2: The SLoAs listed in this document should be addressed to air navigation service providers as well as to airport operators. This is due to the fact that some airports operate their own ground control units for specific areas of responsibility at the airport. Airport operators providing air traffic control services qualify as ANSPs and are therefore covered by the ASP SLoAs. It is up to each implementer to check and select what is relevant to them, depending on local areas of responsibilities

NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

| | |
|---------------------|--|
| Edition | 2022 |
| Stakeholders | Air Navigation Service Provider / Airport Operator |
| Type | SESAR |
| Scope | Airport |
| Status | Initial |

Context

Related Elements



Applicability Area(s) and Timescales

Applicability Area:

See list of airports in MP Level 3 Implementation Plan - Annexes
(Not yet defined - Potentially Multiple Runway Airports in ECAC+ States)

| Timescales | From | By | Applicable to |
|---|------------|------------|---------------|
| IOC used for Analytics functioning only - not for implementation planning | 01-01-2020 | - | |
| FOC used for Analytics functioning only - not for implementation planning | - | 31-12-2030 | |

Links to ATM Master Plan Level 2

OI Operational Improvement Steps

| Code | Title | IOC | FOC | Related Elements |
|-------------------------|---|------------|------------|--------------------------------|
| TS-0313 | Optimized Use of Runway Capacity for Multiple Runway Airports | 31-08-2026 | 31-08-2030 | SOL EN DS |

SOL Links to SESAR Solutions

| Code | Title | Program | Related Elements |
|-----------------|-------|---------|------------------|
| No record found | | | |

PCP Links to PCP ATM Sub-Functionalities

| Code | Title | Related Elements |
|-----------------|-------|------------------|
| No record found | | |

ICAO ICAO Block Modules: No associated data

References

Applicable legislation

None

Applicable ICAO Annexes and other references

None

Deployment Programme 2022

-

Operating Environments

-

Expected Performance Benefits

| | |
|-------------------------------|--|
| Safety | Safety maintained while increasing capacity |
| Capacity | Increased airport capacity |
| Operational efficiency | Both fuel efficiency as well as CO2/Flight Time Efficiency |
| Cost efficiency | - |
| Environment | - |
| Security | - |

Stakeholder Lines of Action

| Code | Title | From | By | Related Enablers |
|-------|--|------|----|------------------|
| ASP01 | Implement a Runway Demand and Capacity system | | | |
| ASP02 | Adapt the ATC System to support optimal runway configuration | | | |
| ASP03 | Develop appropriate procedures | | | |
| ASP04 | Safety assessment | | | |
| ASP05 | Training | | | |
| ASP06 | System in use | | | |
| APO01 | Implement a Runway Demand and Capacity system | | | |
| APO02 | Develop appropriate procedures | | | |
| APO03 | Safety assessment | | | |
| APO04 | Training | | | |
| APO05 | System in use | | | |

Supporting Material

| Title | Related SLoAs |
|-----------------|---------------|
| No record found | |

Consultation & Approval

| | |
|--|---|
| Working Arrangement in charge | - |
| Outline description approved in | - |
| Latest objective review at expert level | - |
| Commitment Decision Body | - |
| Objective approved/endorsed in | - |
| Latest change to objective approved/endorsed in | - |