



AO-0819 — Pro-active Management of Meteorological Impacts

Anticipation of impacts of a potential meteorological condition will allow to limit possible airport performance deterioration (i.e. limiting KPI degradation as best as possible).

The Pro-active Management of Meteorological Impacts is achieved thanks to:

- awareness on probability of occurrence intensity and time of various predicted meteorological conditions, especially potentially disruptive weather events
- traffic data including flight plan trajectory (with the help of big data and machine learning)
- impact assessment of those key predicted weather events on airport performance (through integrated models that forecast future performance, permitting stakeholders to possibly model what-if scenarios)
- evaluation of pre-defined solution scenarios (e.g specific runway-in-use scheme, rerouting strategy) possibly supported by previously-performed post-analysis activities and machine learning capabilities
- collaborative DCB decision-making between airport stakeholders for selection of the scenario that would best limit the overall airport performance deterioration.

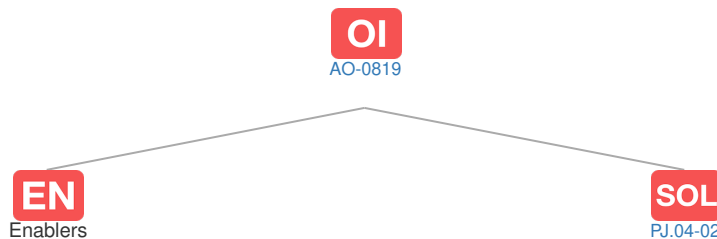
Benefits are expected in Predictability, Efficiency, Capacity and Resilience (disruption duration shortened and number of cancelled flights reduced).

Rationale Today, the capability of the airport to assess how future (forecast) meteorological conditions are going to affect performance, and decide how to react in advance, is limited. There is no indication with that weather forecast of what the impact might be on the operations of the airport. The limitation on ATM operations is that an airport is not able to prepare adequately to take mitigating actions as there is no connection between a forecast weather event and the associated operational risk. Currently different stakeholders interpret weather information separately, based on their own operations, not consolidated between each other. This compromises the overall airport performance.

Forecast V3 end date	31-12-2022	
Benefits start date (IOC)	31-12-2028	
Full benefits date (FOC)	31-12-2032	
Current Maturity Level	V1 finalised	Solution Data Quality Index -
Current Maturity Phase	R&D	
Scope	-	
Release	-	
PCP Status	-	

Context

Related Elements





ICAO Block Modules: No associated data