

MET Enhanced ATFCM

+6-hours forecast thunderstorm delivered as a SWIM Webservice

Because adverse weather conditions are the first cause of traffic delays (*7,9 million minutes of weather delays in 2018, source: European Network Manager*), an accurate and high-precision convection forecast with 6 hours of anticipation is studied by France Aviation. Civile Services and MetSafe with the pupper of the DSNA Reims UAC.

Convection product (white polygons) Observed satellite convection and lightning detection - Convection

oduct 1st version

Expected benefits

- Improvement of the ATFCM decision-making process
- Increase of the safety level
- Improvement of the overall ATM system performance



Project objectives

- Identify MET needs for ATFCM
- Develop a MET product for convection with confidence index (multi model / multi parameters)
- Deliver it as a SWIM web service for OPS validation
- Iterative agile methodology
- Benefit of early SWIM implementation
- Kick-off: May 2019 (12 months activities)



FRANCE

ERVICES

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Operational context

- Feedback from DSNA Reims UAC: limitation of nowcast capabilities, lack of convection product forecast >1h, product fit for decision making, impact qualification, SWIM as a vector for fast integration into ATC tools
- Supported by cross-border Weather trials in the summer of 2020

SWIM delivery

- 4me project opportunity
- Access to the ATC OPS room
- WFS2.0 compliant with AIRM
- Forecast +6h / Step +1h
- Introduction of a confidence index
- Early technical integration into DSNA Reims UAC web HMI



Confidence index

The confidence index is calculated from the agreement between several sources of different natures : forecast, nowcast, observation, regional and global numerical weather models. According to the parameters and the reliability of the data, weighting simulates the choice that a weather forecaster would make.

