





## **Adverse Weather**

## New procedures help optimise air traffic management over the Alps in adverse weather conditions

11 September 2018; Weather conditions cannot be changed but the consequences can be managed more effectively. Working together and across borders, experts from numerous control centres worked on a set of procedures to deal with adverse weather conditions in the Alps and the impact on Munich Airport.

Arrivals from the south to Munich Airport are regularly impacted by the specific weather conditions in the Alps. Adverse weather often occurs unexpectedly. Consequently, inbound flights to Munich Airport had been routinely re-routed to the upper airspace controlled by Karlsruhe UAC at short notice. These flights increased the complexity in already overloaded sectors, as they were unforeseen, the flights were in reality too high for direct inbounds to Munich and they did not fit into the usual traffic streams.

In addition, the number of thunderstorms in the Alps has been increasing over the last years. In the first half 2018, traffic to Munich Airport was affected on 17 days, which was already higher than the impact experienced in 2017 (16 days). To deal with this situation, experts from the control centres in Karlsruhe, Munich, Padova, Vienna and Zurich developed new procedures to stabilise the network, to reduce the workload in Karlsruhe UAC and – most importantly – to increase safety under adverse weather conditions.

Under the new procedures, controllers working in Padova, Vienna or Zurich distribute the traffic to three additional fixed routings via airspace controlled by Karlsruhe, Zurich or Vienna. In addition, descent areas have been defined to ensure a smooth inbound flow to Munich airport. To increase predictability, an automated data exchange has been set up and briefings are organised to agree upfront on the scenarios to be applied. All partners involved have signed specific Letters of Agreement.

Andreas Pötzsch, Director En-route and Approach, DFS: This is an excellent example of how operational experts are working in common and across borders to develop tailored solutions for the benefit of the network.









Gaetano Longo, Head of Padova ACC, ENAV: Bad weather operations often need a coordinated cross-border management. The Weather initiative permits an early predictability that drives to an increased operational flexibility, not only at local level but among adjacent units too.

Martin Pötsch, Business Unit Manager Operations Austro Control: Severe weather operations remains as one of the biggest challenges across the Alpine region. With this new procedure, five ACCs/UACs are able to improve their service quality for flights arriving to Munich airport during severe weather, while keeping the high safety standards. The cooperative approach of all stakeholders involved may be seen as a role model for other airports or areas effected by frequent weather disruptions.

René Lehner, Head of ACC Zurich, skyguide: Operations in the Alpine area become increasingly interlocked. We welcome this coordinated approach to resolving problems by making use of available data exchange technologies, which benefit the whole network.

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