

**Atlantic Conference on Eyjafjallajökull and Aviation
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SPEAKING NOTES

1. Good morning, ladies and gentlemen. It is a pleasure to be here, and to have the opportunity to talk a little about the implications for civil aviation of Iceland's volcanic eruption earlier this year.
2. I will do so in my capacity as President of the European Civil Aviation Conference. But of course I was also very much involved in events at the time as Director General for Civil Aviation for Portugal, which found itself handling some of the consequences of the airspace closures further north.
3. Part of the title of this first session is, "*What Happened?*". In terms of the volcanic event itself, "what happened" is much better addressed by others here. And what happened in terms of air travel and the aviation industry has already been pretty well documented. Airspace closures in north and west Europe for six days in mid-April; perhaps 10 million passengers impacted; and very large costs for the aviation sector, with

airline revenue losses alone claimed to be perhaps as large as US\$1.8 billion.

4. Also part of "what happened" was a certain amount of finger-pointing. That was natural enough, I suppose. Personally, I believe the circumstances at the time made it inevitable that Europe's Ministers would take a precautionary approach, to what was, after all, firstly a *safety* issue. If that initial response has proved in light of further analysis to be an over-reaction - well, we can all be wise after the event.
5. The time for laying blame is anyway over. Historically, aviation's extraordinary record of progress has been won through cooperation and partnership, amongst a very wide range of actors in industry, government and beyond. It is by working in that way that aviation will take on board the lessons of last Spring, and will do better next time.
6. More interesting, I believe, are the issues around the second half of the Session title - "*What needs to be done?*". Implicit in that are some more immediately urgent questions. If we had another such eruption tomorrow, would it be handled differently, would it be handled *better*? We must be able to answer with an unequivocal "Yes". The public expects no less. But I am conscious that not all in the aviation community believe that we are yet in a position to give that answer. That is something we must address this week.
7. Events in the Spring demonstrated very clearly that the civil aviation community needed to improve its understanding of the effects of volcanic ash, and in particular to exploit advances in technical capability which will for both enhanced safety *and* greater continuity in air services.

8. Much has been done since then, by many different players, and we shall no doubt be hearing a lot about that. A good deal of the early burden fell on EUROCONTROL, where it was very well handled I believe by David McMillan and his team. EU Ministers were then soon involved, and EASA, and in mid-May ECAC's forty-four Directors General devoted a large part of their Spring meeting to the volcanic ash issues. It also figured large on the agenda of our regular meeting that month with the US government.
9. One effect of the events of last Spring was the impetus which the episode gave to the establishment of the 'European Aviation Crisis Coordination Cell', about which Daniel Calleja has spoken. The issues around crisis management in such a fast-moving and interdependent industry sector as international civil aviation are critically important - and indeed they are due to be examined by ECAC's Directors General at the next of their annual "Forum" discussions, in Paris in December.
10. Since the Spring there has been much activity in ICAO, both at the European regional level by the EUR/NAT Volcanic Ash Task Force to update the region's contingency planning procedures, and in Montreal through the ongoing work of the International Aviation Volcanic Ash Task Force. Industry too has been, and remains, very focused on the issues, in particular in relation to the effects on aero-engines and airframes of exposure to different volumes and concentrations of volcanic ash.
11. But certainly much more has still to be done - and to be done, moreover, with a sense of urgency. The clock is ticking down to the next eruption, even as we sit here. Some of this further work is flagged in a paper which the forty-four ECAC States will submit very soon to the forthcoming ICAO Assembly, under the lead of the Belgian EU

Presidency. Amongst other things, this will identify potential short-term improvements to ICAO Annex 3, around the frequency of volcanic ash advisories, the level of detail to be provided in VAAC charts, and the possibility of such charts incorporating FIR boundaries.

12. But more is also needed. We need a better scientific understanding of volcanic activities and ash clouds as they impact on civil aviation. We need the best possible models for predicting how such clouds behave. We need to be able to validate and further improve such models through actual *measurements*, however they are made. And of course we need a full understanding of how such ash affects airframes and aero-engines, in different combinations of ash type, concentration and exposure period. The conditions for safe operating have to be fully understood: there is still no international agreement on a means to certify a level of volcanic ash tolerance.
13. And then at the policy level, we need a common understanding of the allocation of responsibilities in all of this, including in relation to the conducting of risk assessments. Here in particular the events of last Spring have driven much very valuable debate.
14. The two best-known cases of large commercial aircraft put in peril by volcanic ash happened in June 1982, when British Airways Flight 009 flew into ash from Mount Galunggung in western Java; and in December 1989 when KLM Flight 867, descending into Anchorage, encountered ash from Mount Redoubt. In each case, all four engines stopped. These two very frightening events happened quite a long time ago. The problems we saw last Spring suggest that for whatever reasons, the necessary lessons were not learned. We must make sure that no one looking back can say that the same failure happened in 2010.

15. The Keilir Aviation Academy, and the Icelandic Civil Aviation Authority, are to be congratulated on the organisation of this week's event, taking place on the very doorstep of the villain of the piece, the name of which - like many who will follow me this week, I feel sure - I have carefully avoided having to say.

16. Thank you.