

Position Paper

EASA/FAA Annual Safety Conference (Vienna, 13-16 June 2011)

Workshop on the Role of Aviation Organizations (14th June, 2pm-3h30pm)

Moderator: Eric Sivel/EASA

Panel:

Yves Morier/EASA, John Allen/FAA, Adrie Kraan/Boeing, Vincent De Vroey/AEA and Maciej Rodak/CANSO

AEA intervention: the impact of increased volcanic eruptions on airline operations

EU airlines flying globally have a long-standing experience for dealing with the potential safety hazards related to volcanic eruptions. The handling of those volcanic eruption events outside Europe have never led to major disruptions of air traffic nor has it led to any accidents. Whereas there have been two major incidents many years ago, lessons have been learned from those incidents in particular regarding the need to remain away from the volcanic plume in the immediate vicinity of the volcano. Although there are no certification limits for aircraft and engines (and there will probably not be such limits for the foreseeable future due to the complexity of this task), a lot of experience exists for dealing with potential hazards related to volcanic ash in particular regarding the procedures to be followed to prevent accidents or major incidents.

Traditionally, within Europe, volcanic eruptions have never been a frequent event of importance to air traffic, with the exception of the occasional eruptions of Etna volcano which are contained to its immediate surroundings.

This situation has changed with last year's events. The Eyjafjallajökull volcanic eruptions in Iceland in 2010 resulted in airspace closures that led to major disruptions for the airline industry and the travelling public. This has had a huge cost impact on the aviation industry and the EU economy as a whole. AEA airlines alone lost 1.2 billion Euro due to the April/May 2010 airspace closures which were not justified on safety grounds. Following these events, it was agreed that Europe needed to review its procedures. The recent eruption of the Grimsvötn volcano has been another wake up call for Europe. The situation for airline operations in Europe has changed with more frequent volcanic eruptions.

Despite the progress made since last year's event, fragmentation still exists with different EASA member States applying different safety measures. Europe needs to do more to align its procedures with the best practices in place in other parts of the

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- airberlin
- Air France
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- Alitalia
- Austrian
- British Airways
- British Midland International
- brussels airlines
- Cargolux
- Croatia Airlines
- Cyprus Airways
- Czech Airlines
- DHL
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Montenegro Airlines
- Olympic Air
- SAS Scandinavian Airlines
- SWISS
- TAP Portugal
- TAROM
- TNT Airways
- Turkish Airlines
- Ukraine International Airlines
- Virgin Atlantic Airways

world such as in the USA. Specifically, Europe is the only region in the world where responsibility for dealing with the potential hazards of volcanic ash does not fully reside with the airlines. EU Regulators are responsible for operational standards of their AOC holders world-wide, yet do not appear interested in how airlines operate outside of Europe. In the Caribbean the UK has oversight responsibility, yet the USA VAAC publishes the data and operators use the US model with no interference from the authority. And during the Japan earthquake there were 2 or 3 volcanoes erupting and a radiation scare, yet no interest in how we were operating. Why should volcanic ash be handled different in EU airspace?

More solid EASA guidance is needed. Safety measures must be proportionate to the risk. Complete ban of operations is unacceptable. There should be clear guidance on what constitutes a danger area and to ensure a harmonized application of the ash contamination levels and more importantly to make it clear that the airlines are fully in charge of decision making whether or not to cancel flights.

In addition, more EU leadership is required to deploy adequate radar / observation infrastructure in Iceland or over Europe to improve the VAAC model input and to have a better coordination of measurement tools.

From the AEA point of view, operators should be responsible for assessing the risk and conducting safe flight as part of their Safety Management System. The role of regulators is to approve and oversee the safety management system of the airline, but not to get involved in particular safety cases. There should therefore only be a requirement to make the procedure for Safety Risk Assessment (SRA) available to the National Aviation Authority (= acceptance) but no need for the NAA to formally approve the safety cases or methodology used for a specific safety case.

This also means National Authorities should not close airspaces nor should they decide which information sources airlines should use for the prediction of ash contamination levels.

Unfortunately, recent experience has confirmed that different EASA member States apply different criteria with some closing airspace solely based on information from the VAA charts, whereas others require airlines to obtain formal approval from OEMs. Taking into account the inherent weaknesses of the VAAC models, airlines are cross-checking with other information sources to decide whether or not to discontinue flights and of course they will never fly in the immediate surroundings of the volcano and its plume.

As an example of a risk based approach I will now explain the procedure applied by some airlines:

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- Croatia Airlines
- Cyprus Airways
- Czech Airlines
- DHL
- Finnair
- Iberia
- Icelandair
- Jat Airways
- KLM
- LOT
- Lufthansa
- Luxair
- Malev
- Montenegro Airlines
- Olympic Air
- SAS Scandinavian Airlines
- SWISS
- TAP Portugal
- TAROM
- TNT Airways
- Turkish Airlines
- Ukraine International Airlines
- Virgin Atlantic Airways

- 0-120 NM from the volcano: no fly zone (in the direction of the plume)
- 120 NM – 500 NM: areas of high contamination on VAAC charts or areas shown by WSI will be declared by the airline as no fly zone
- 500 NM and above: if areas of high contamination and WSI overlap, then the airline will declare a no fly zone. If they do not overlap, then there is a high likelihood that there is no high contamination of ash and flights will be continued.

Last but not least a Safety Risk Assessment should be valid globally and should only be made available to the NAA of the state of the operator. There should be no need for separate approvals/acceptance from foreign NAA in charge of the airspace.

So ladies and gentlemen, the recent Grimsvötn volcano has been another wake up call for Europe. Whereas we would like to thank EASA and Eurocontrol for their efforts towards a more harmonized European approach and also those Member States who subscribed to such a common approach, it is now time to consolidate the initial work. We need a more pragmatic and uniform European approach based on solid EASA guidance in line with best practices in place in other parts of the world. No time should be lost since there is a high probability of future volcanic eruptions affecting EU airspace in the near future.