Session: S02.14 - Volcanic alert level systems: rules and competencies in managing volcanic risk

Communicating volcano status and volcanic hazards in Iceland: how to improve?

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Since 2012 the Icelandic Meteorological Office, as the Icelandic Volcano Observatory, has been using the Aviation Color Code (ACC) as the main and official tool to communicate the status of volcanoes and their potential for hazards. Changes in the ACC triggers activities and contingency plans at other institutions. The use of the ACC has been discussed between IMO and the Icelandic Air Navigation Service Provider (ISAVIA), between whom it has been agreed that for potential subglacial eruptions, the ACC would be raised to red upon detection of volcanic tremor, since it is likely to preceed the visual confirmation of an eruption. Additionally, the National Civil Protection (NCIP) is most often linking their warning levels to IMO‘s changes of the ACC.

The experience gained using the ACC over the last years includes one eruption (the 6-months long Bárðarbunga-Holuhraun eruption in 2014-2015) and several unrest phases at other volcanoes, most recently at Öræfajökull.

By reviewing our use of the ACC we can identify a major deficiency for communicating proximal hazards possibly affecting those closest to a volcano. Despite this clear lack, we have not yet applied or developed a suitable proximal hazard alert level system that is collectively agreed upon by the responsible parties. So far, it has been easier to maintain a well-established, but insufficient tool, rather than instituting a new one.

We will present how we are currently using the ACC for aviation-related hazards and how it has been linked to proximal hazards assessment through the NCIP alert level. We will also describe the attempts that have been made to apply VALS established at other volcano

observatories to the Icelandic volcanoes with the aim to have a new system in place in the coming year.