



Catalogue of Icelandic Volcanoes

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The Catalogue of Icelandic Volcanoes is a newly developed open-access web resource in English intended to serve as an official source of information about active volcanoes in Iceland and their characteristics. The Catalogue forms a part of an integrated volcanic risk assessment project in Iceland GOSVÁ (commenced in 2012), as well as being part of the effort of FUTUREVOLC (2012-2016) on establishing an Icelandic volcano supersite.

Volcanic activity in Iceland occurs on volcanic systems that usually comprise a central volcano and fissure swarm. Over 30 systems have been active during the Holocene (the time since the end of the last glaciation – approximately the last 11,500 years).

In the last 50 years, over 20 eruptions have occurred in Iceland displaying very varied activity in terms of eruption styles, eruptive environments, eruptive products and the distribution lava and tephra. Although basaltic eruptions are most common, the majority of eruptions are explosive, not the least due to magma-water interaction in ice-covered volcanoes.

Extensive research has taken place on Icelandic volcanism, and the results reported in numerous scientific papers and other publications. In 2010, the International Civil Aviation Organisation (ICAO) funded a 3 year project to collate the current state of knowledge and create a comprehensive catalogue readily available to decision makers, stakeholders and the general public. The work on the Catalogue began in 2011, and was then further supported by the Icelandic government and the EU through the FP7 project FUTUREVOLC.

The Catalogue of Icelandic Volcanoes is a collaboration of the Icelandic Meteorological Office (the state volcano observatory), the Institute of Earth Sciences at the University of Iceland, and the Civil Protection Department of the National Commissioner of the Iceland Police, with contributions from a large number of specialists in Iceland and elsewhere.

The Catalogue is built up of chapters with texts and various mapped information for each of the 32 volcanic systems. The contributions can be classified into three types:

1. Text and other material (including maps and tephra grain size data) on geological aspects and eruption history. This constitutes the bulk of the information presented in the catalogue.
2. Sub-chapters on current alert level and activity status for each volcanic system, updated automatically with information from the IMO monitoring network.
3. Sub-chapters on eruption scenarios, based on the eruption history.

We will showcase the newly opened Catalogue web resource at EGU 2016.