

Legend to ÍSOR's earthquake website

Below there are a few explanatory figures explaining the earthquake website and its operation

The front page

It contains a general information text along with buttons to look at several parts of the website



Earthquakes in Krafla, Námafjall and Theistareykir

ÍSOR (Iceland Geosurvey) runs a dense network of seismometers for Landsvirkjun (The National Power Company) due to energy production and research on the high temperature areas of Krafla, Námafjall and Theistareykir. The network also makes use of Veðurstofa Íslands' (The Meteorological Office of Iceland) countrywide network. The objective is to gather information on the infrastructure of the geothermal areas and how production affects them., especially with regard to stimulated earthquakes. The system is not installed as a warning system for natural risks like Veðurstofa Íslands' seismometer system.

The seismometers are equipped to send constant information by telecommunications to ÍSOR where the data is automatically handled and earthquakes located and information published in real time. Ísor uses SeisComp3 software from GDZ/Gempa in Germany for that purpose. On weekdays the locations determined automatically are checked, and improved if necessary and wrong recordings corrected. In maps that show earthquake locations they are marked with a circle in different colours where each colour represents a certain depth interval. The size of the circles indicates the size of the earthquakes. Earthquake recording stations are marked with triangles.

This website is under construction and will be changed soon according to the needs of Landsvirkjun. Note! The website is best operated in a Chrome browser.

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
The button

Earthquake view

09:17  **ÍSOR**
powered by  **geonix** 

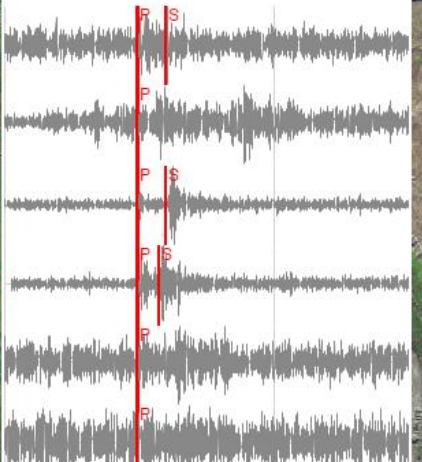
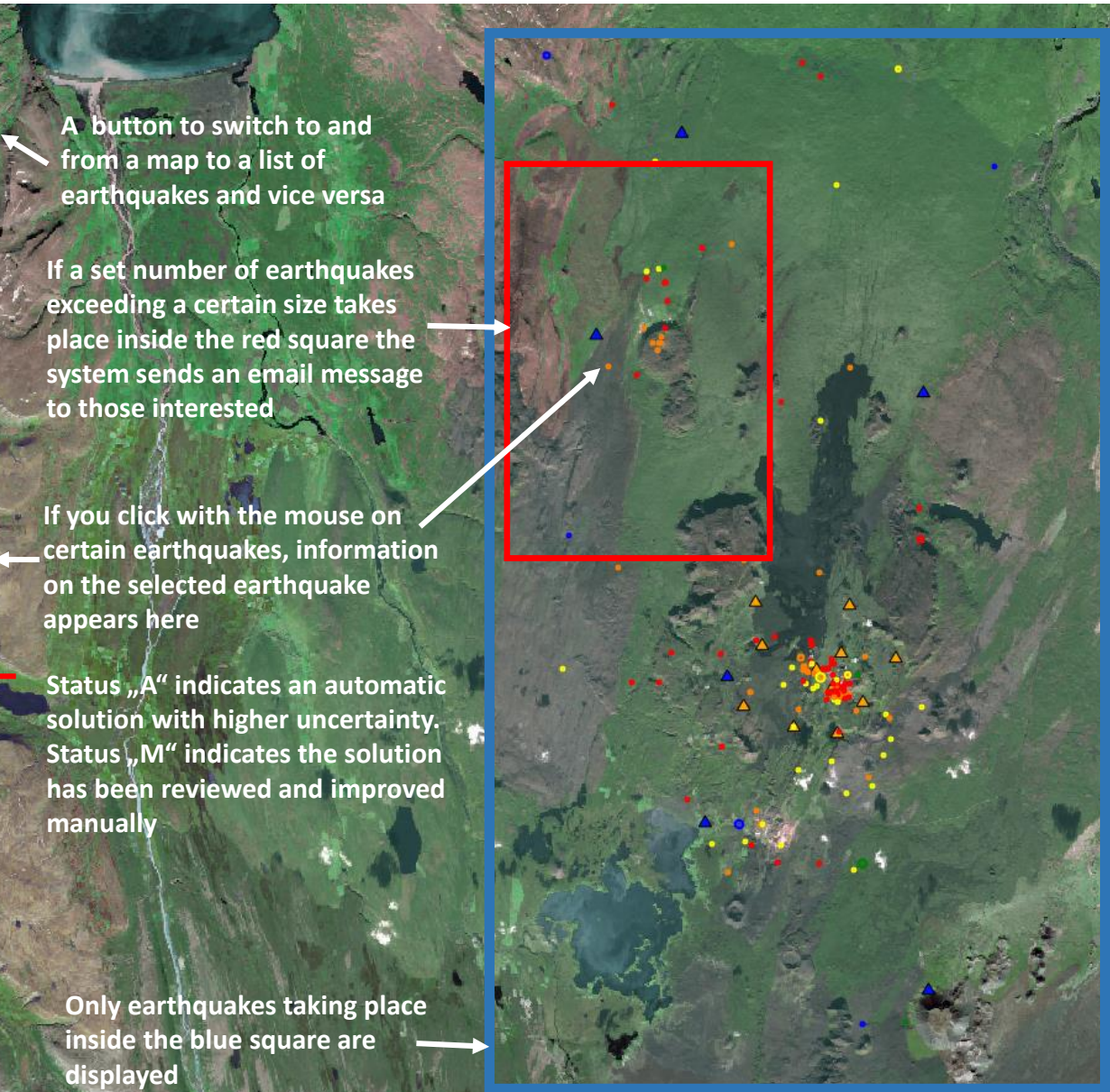
Síðasti skjálfti 
Norðurland M0.0, 7 dagar

0.3 Iceland
fyrir 19 mínútum síðan

Iceland 

Mag **0.3**
Depth 3km
Time 2016-10-14 19:19:22
Location 65.9° N 17.0° W
EventID isor2016uihvot

Agency ISOR
Status **A**
Phases 10

A button to switch to and from a map to a list of earthquakes and vice versa

If a set number of earthquakes exceeding a certain size takes place inside the red square the system sends an email message to those interested

If you click with the mouse on certain earthquakes, information on the selected earthquake appears here

Status „A“ indicates an automatic solution with higher uncertainty. Status „M“ indicates the solution has been reviewed and improved manually

Only earthquakes taking place inside the blue square are displayed

Clicking the smaller frames brings up a limited view of the corresponding area

Krafla M0.0, 7 dagar



0.2 Iceland
fyrir 3 klst síðan

Þeistareykir M0.0, 7 dagar



0.3 Iceland
fyrir 3 klst síðan

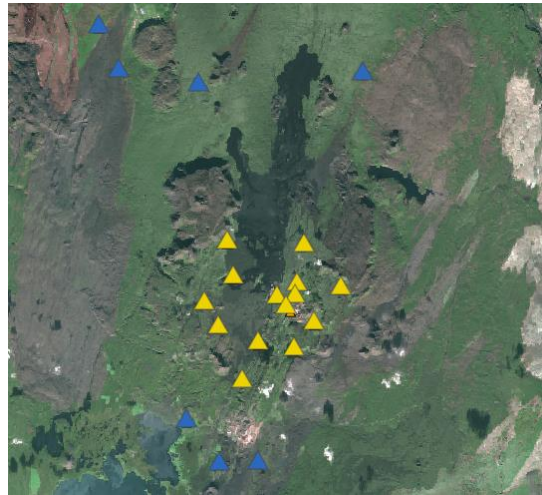
Each earthquake is marked as a circle. The size of the circle depends on the size of the earthquake and the colour shows at what depth interval it took place. The locations of the seismometers are represented by triangles

A time sequence of the earthquakes can be seen under the tab „Sections and maps“ on the front page

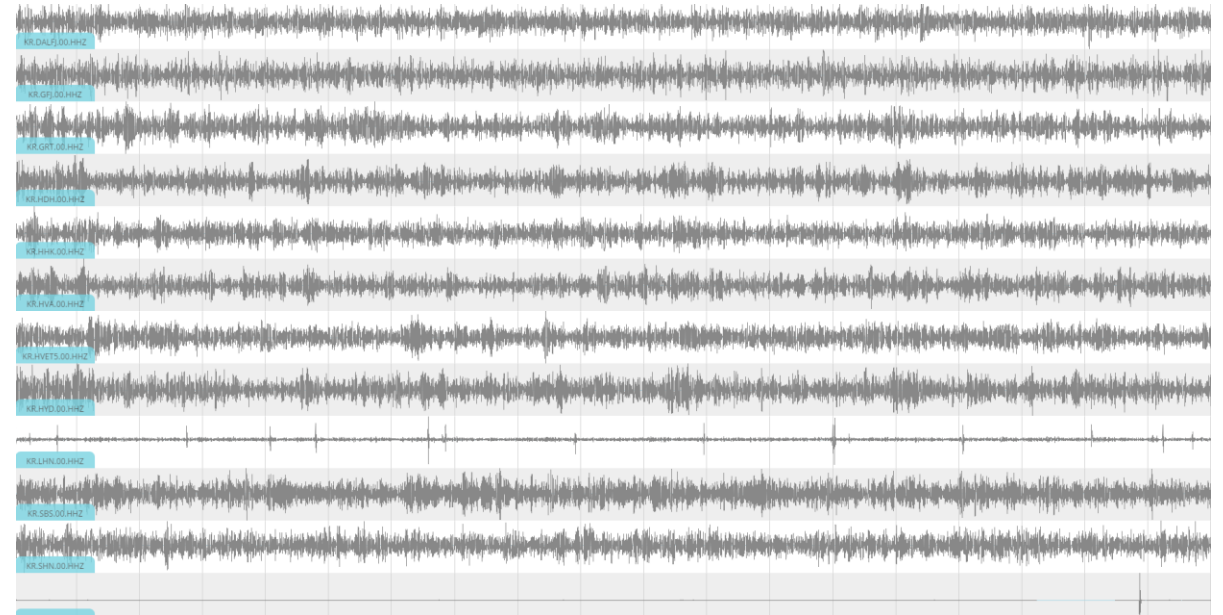
The button

Real-time data

When the button is clicked a map showing the earthquake recording stations as blue triangles appears:



If we click and demarcate an area including the stations we want to check with the mouse they will appear in a yellow color. Then tick „Show data“ and the picture appears here to the side showing the recordings from the stations in real time. This is a convenient way of checking the stations' operations and the data that is recorded.



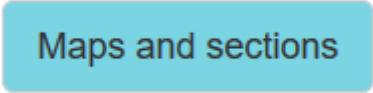
The button

Event browser

By clicking this button it is possible to obtain a list of earthquakes on a daily basis from the system since it started operating. The list that appears when the date has been selected looks as is shown here:

Gagnavafri							
Archive > 2016 > 10 > 2							
Origin Time UTC	Mag	Latitude degrees	Longitude degrees	Depth km	A M	Agency	Region Name
2016-10-02 00:18:12	0.1	65.71°N	16.75°W	2	M	ISOR	Iceland
2016-10-02 00:23:21	0.1	65.71°N	16.75°W	2	M	ISOR	Iceland
2016-10-02 01:24:14	0.0	65.69°N	16.78°W	2	M	ISOR	Iceland
2016-10-02 01:39:23	0.2	65.70°N	16.75°W	2	M	ISOR	Iceland
2016-10-02 02:48:55	0.2	65.71°N	16.75°W	2	M	ISOR	Iceland
2016-10-02 03:32:54	0.5	65.71°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 07:02:59	0.7	65.73°N	16.86°W	-1	A	ISOR	Iceland
2016-10-02 11:54:24	0.2	65.70°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 12:08:51	0.8	65.65°N	16.85°W	5	M	ISOR	Iceland
2016-10-02 12:10:54	0.5	65.71°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 13:08:28	0.5	65.71°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 13:10:26	0.4	65.71°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 14:01:35	1.6	65.77°N	16.80°W	11	A	ISOR	Iceland
2016-10-02 14:50:27	0.4	65.71°N	16.76°W	2	M	ISOR	Iceland
2016-10-02 17:12:23	0.7	65.65°N	16.85°W	6	M	ISOR	Iceland

The button



Maps and sections

When this button is clicked several processing data appear, among them maps that reveal the locations of earthquakes over last two weeks grouped on a time basis. This map is upgraded every 5 minutes.

Later more pictures are intended to be added here showing various types of data processing.

The button

Link to Ví

This button opens the earthquake website of Veðurstofa Íslands (Icelandic Meteorological Office) in a separate window. There it is possible to view seismic activity in the whole country with reference seismometer network (SIL system)

