

Arason, P. (2013), Aurora forecasts of the Icelandic Meteorological Office American Geophysical Union, *Chapman conference on fundamental properties and processes of magnetotails*, Reykjavík, Iceland, 10-15 March 2013

## **Aurora forecasts of the Icelandic Meteorological Office**

Þórður Arason

Icelandic Meteorological Office, Reykjavík, Iceland

In October 2012, the Icelandic Meteorological Office (the national weather service) started aurora forecast services on its web in response to increased aurora tourism in Iceland. In addition to information on darkness hours, the sun and the moon, forecasts are published on cloud cover and space weather for the next six nights. The space weather forecasts are based on predictions from NOAA's Space Weather Prediction Center, while the cloud cover forecast maps of Iceland are derived from the ECM 0.125 model of the European Centre for Medium-Range Weather Forecasts. Furthermore, a weather forecaster on duty implies possible deviations and the reliability of the forecast. In addition to a simple representation of the aurora forecast, detailed auxiliary information is available. Apparently, this mixture of detailed local weather information with information on solar- and auroral activity is quite unique. Iceland is on the UTC timezone all year round, and because Reykjavík is at 22°W longitude, the local noon is about one and a half hour after 12 o'clock. Magnetic declination in Reykjavík is currently about -16°. During the conference week the true midnight will be at about 01:40 and the geomagnetic midnight at about 00:20. Sunset times in Reykjavík during the conference week of 10-15 March 2013, Sunday through Friday, varies between 19:14-19:29 (7:14-7:29 PM); end of civil twilight 20:02-20:17; and astronomical twilight 21:58-22:17. There is a new moon on Monday night, 11 March, so moonlight should not interfere with auroral viewing. The chances of seeing a lively aurora over Reykjavík during the conference week will be discussed by reviewing local weather, cloud cover and space weather forecasts. The English version of the aurora forecast of the Icelandic Meteorological Office can be found at: <http://en.vedur.is/weather/forecasts/aurora/>