

PRODUCT SHEET

LIGHTNING AND THUNDER WARNING SERVICE

The Swedish Meteorological and Hydrological Institute's (SMHI) Thunderstorm Warning Service provides all the information you need to plan and act in advance of lightning and thunder. Even before the onset of a thunderstorm you will be warned by our meteorologist's thunderstorm warning. Lightning strikes in your warning area will be communicated via text message (SMS) or email. You can also follow lightning strikes and storm development live via the internet and review subsequent analyses via the lightning archive.

SMHI's Thunderstorm Warning Service is a comprehensive warning service. You will have access to all the weather information you need on one website. Also included are SMS and email communications when a thunderstorm warning has been issued in your area. In the same way, you will be informed of actual lightning strikes in real time. In addition, you can always contact our on-call meteorologist with any questions.

THUNDERSTORM WARNING SERVICE ON THE WEB

■ Thunderstorm Warnings and Lightning Detection.

You can see where all lightning strikes have occurred in the last three hours. Alongside the locations of the lightning strikes, the meteorologist's thunderstorm warning map indicates areas where a risk of thunder exists during the next day. The thunderstorm warnings are updated five times per day and each update is accompanied by the meteorologist's comment for the 12 hours period after the last map.

■ **Lightning Archive.** Our lightning archive is searchable so you can see when and where lightning strikes have occurred, the lightning's polarity and the current strength. You have access to lightning tracking data from the past 15 months. If you require more historical data, please contact us for assistance.

■ **Observations.** Radar images and observations are captured in maps, charts and diagrams.

■ **Weather Overview.** The weather overview offers in-depth weather information. Automatic updates of radar and lightning, satellite images and weather prognoses for up to 10 days.

ALERTS VIA SMS AND EMAIL

■ **Thunderstorm Warning.** You will be warned via SMS and/or email if thunder is expected in your area the following day. You can choose at which level of warning to be notified (i.e.: low, moderate or severe thunderstorm warning).

■ **Lightning Strikes.** You will be notified via SMS and/or email when lightning strikes have occurred in your area. You will also be given a distance reading from the location you have indicated or selected.

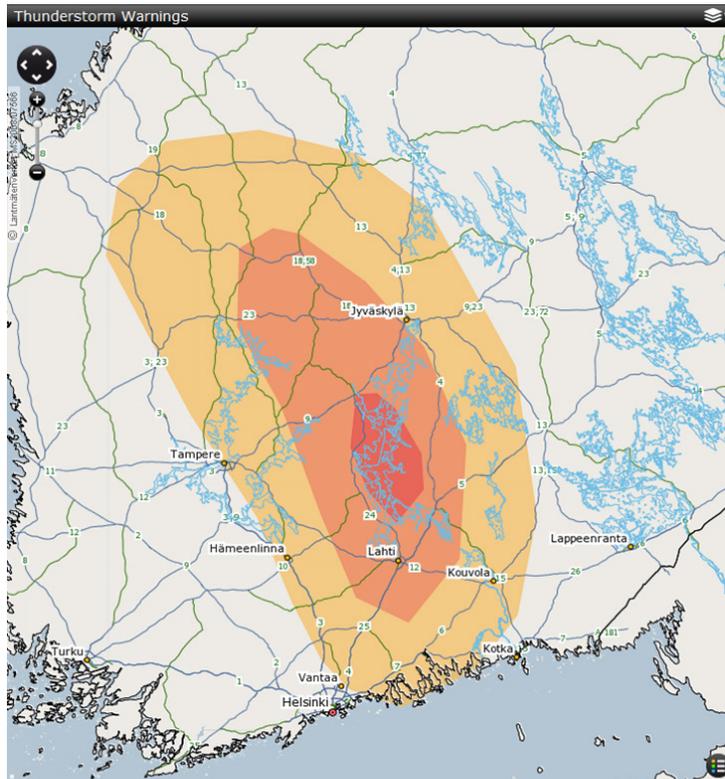
CONSULT WITH A METEOROLOGIST

It can be reassuring to receive advice from an expert in certain cases. As part of our service and for your reassurance, you can consult with one of our experienced meteorologists. For answers to your questions, just phone our on-call meteorologist at any time.

For more information please contact:

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Forecast issued:
2015-04-04 15:42

THE METEOROLOGIST'S COMMENT

Valid for another 12 hours (Finland)

For tomorrow during the period 06-18: In the early morning still some showers of rain in the most northeastern parts with low risk of thunder. During the afternoon more intense showers are expected in southern Finland, with low or moderate risk of thunder.

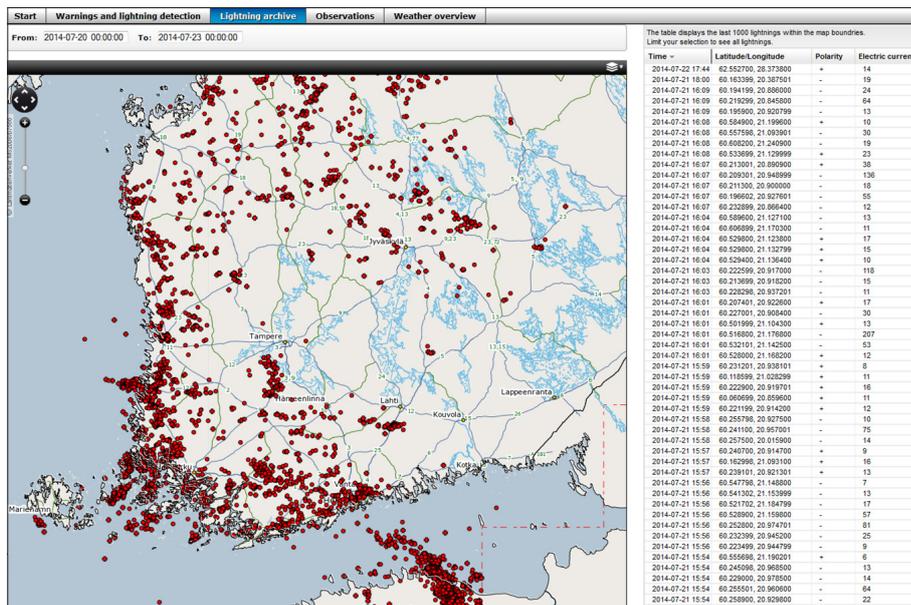
INFORMATION

HOW TO INTERPRET OUR THUNDERSTORM WARNING

The probability for thunderstorms on our maps is presented in four levels:

- No risk = 0-5 %
- Low risk (yellow) = 5-25 %
- Moderate risk (orange) = 25-50 %
- Severe risk (red) = more than 50 %

The thunderstorm warning map indicates the meteorologist's estimated risk of thunder during a given time period according to the following scale: none, low, moderate or severe thunderstorm warning.



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SMHI's Thunderstorm Service benefits process industries and electricity network operators. Here are some comments from a couple of our customers:

"We use the thunderstorm warning service from SMHI to minimize the damage in our process; we are heavily impacted by voltage dips in our facility. Some processes will take up to 24 hours to re-start, with huge costs and loss in production. With a thunderstorm warning service we are able to warn our process units to be observant where we have facilities that are vulnerable to interference. When we see that there is a severe thunderstorm on its way, we also prepare our maintenance personnel for possible disturbances"

Lars Wennberg, Manager Engineering
Maintenance and Engineering, SSAB Special Steels

"E.ON Power Distribution Network use SMHI's warning services for assessing the coming weather situation. Their services provide decision support for the engineer on duty in crisis management when the weather can have an impact on the electricity grid. This allows us to prepare in advance for stormy weather, such as heavy snowfall and thunderstorms. This helps us to reduce disruptions to our customers, which at the same time can save millions for us. It also increases the safety of our employees working to repair damage to the electricity grid"

Anders Klemedsson, Director Operations
E.ON Elnät Sverige AB

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