

## Spring flood

The spring months involve great risk of spring flood. The combination of heavy rain and a rise in temperature get the snow and ice to melt very quickly. But the towns and the small settlements in Greenland are coped with the risk in the areas, which frequently suffer from flooding.

Nuuk is characterized by large ditches along the roads. In the summer they seem oversized, but their size are necessary in the spring months, when the spring flood threatens to flood roads and squares. When the spring flood is at its worst, the mud pump has to assist and pump the melt water out in the fiord.

Usually, it is estimated that one centimetre fresh snow corresponds to one millimetre of rain - but when the snow has been lying for months, the old snow is compressed, and then one centimetre of old snow corresponds to about three to five millimetres of rain.

The sudden spring flood of melting

snow has the same effect as a heavy rain - and ten to fifteen centimetres melted snow corresponds to approximately forty millimetres of rain. In addition, a rainfall in violent storms can include many millimetres within a few hours.

Out in the mountains even small streams swell to large rivers with rushing water. In many places, the spring flood is forming snow bridges because the water hollows through the snow and erodes many metres deep snow along the course of the river. Late in June, these snow bridges are able to carry a person, but it is an intense experience, when such a snow bridge suddenly collapse under one's feed.

Many places in Greenland may experience spring flood in the summer. Last year the spring flood broke a bridge to pieces at the airport in Kangerlussuaq. A river from the ice sheet swelled up after many days of sun and carried away the bridge made of reinforced concrete.



*Spring flood, Nuuk, April 2012*