

# NEWS from The Starburst Foundation

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**FOR IMMEDIATE RELEASE**

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## The Generation of Mega Glacial Meltwater Floods and their Geologic Impact

A new theory explains how mountain-sized waves of glacial meltwater could have been produced during the last ice age. In a paper published last month in the journal *Hydrology: Current Research*, Paul LaViolette describes how immense waves of glacial meltwater could have been produced on the surface of the North American and European ice sheets during periods of excessive climatic warmth when the ice sheet surface was melting at an accelerated rate.

He demonstrated that, during warm interstadial periods, the ice sheet surface would have been covered with perched lakes of glacial meltwater and that if a lake near the ice sheet summit were to catastrophically empty due to an ice dam breach the resulting discharge of meltwater would have sequentially triggered the emptying of other lakes as it descended the ice sheet surface. The resulting meltwater wave, called a *glacier wave*, would grow in size through a domino effect and by the time it reached the bottom of the ice sheet would achieved heights as great as 300 meters and be moving forward at a speed of 900 km/hr. Each meter of the wavefront would carry a kinetic energy of 12 million tons of TNT allowing it to surmount mountains possibly up to 1500 meters in height and to travel many hundreds of kilometers outward from the edge of the ice sheet. Such waves would have repeatedly discharged from the ice sheet surfaces during warm intervals.



Glacier waves would be able to account for the character of the permafrost deposits found in Alaska and Siberia, some of which are found at elevations as high as 650 meters above the valley floor. They could also explain how the remains of many extinct Pleistocene mammals had become shredded and entombed in these deposits. They could also explain the formation of the numerous drumlin field formations seen in North America, and of the many of the lignite deposits found in Europe, Siberia, and North America. The lignite deposit found in Megalopolis, a town in southern Greece, for example, is found at an elevation of about 400 meters above sea level and is ringed by mountains that rise as high as 1500 meters. The lignite appears to have been pulverized by violent forces before being catastrophically deposited in the Megalopolis basin.

Such waves could also account for how continental debris was transported thousands of kilometers into the mid North Atlantic to form the so called *Heinrich layers*. It is proposed that such layers form at times when a sea ice shelf covered the North Atlantic and bordered the ice sheet thereby allowing the glacier waves to travel great distances before depositing their debris in the ocean. Heinrich layers have been found as far as 3000 km from the edge of the ice sheet.

LaViolette notes that such waves would have posed a serious hazard to ice age man and animals and could be the source of the flood myths handed down by word of mouth in cultures all over the world.

The paper entitled "The Generation of Mega Glacial Meltwater Floods and their Geologic Impact" may be downloaded at the following link: [LaViolette, 2017](#).