Numerical simulations of the May 18, 1980 blast at Mount St. Helens

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The trees were blown down by generating the blast, which extended right after the sector collapse occurred in Mt. St. Helens on May 18, 1980. The phenomenon that the tree falls closely relates to the over pressure of the blast and has a certain threshold value. Then the maximum over pressure in the various places in the mountain body was simulated by using the calculation code of the shock wave propagation and the fallen down tree region was investigated. The model of the calculations was used the line explosion model many explosion centers which had been set up on the route where the debris avalanche flowed continuously exploded as time passed. The initial conditions of the explosion centers were used the value presumed based on the area the 90% trees were blown down.