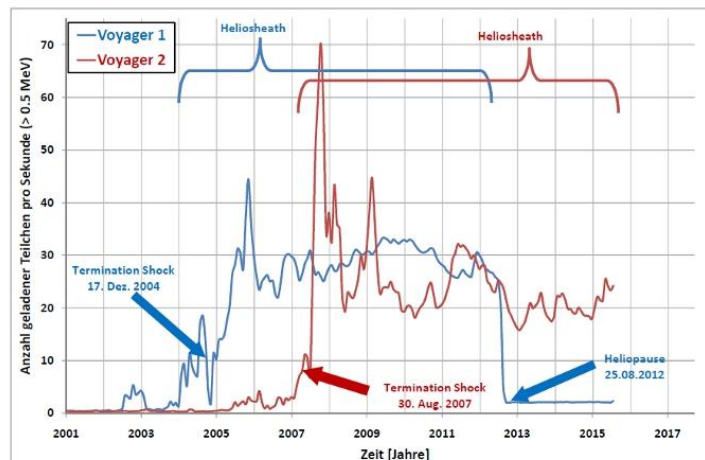


# Termination Shock



Picture: Graphs of heliosheath detections by Voyager 1 and Voyager 2. Voyager 2 has since crossed the heliopause into interstellar space.

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[https://en.wikipedia.org/wiki/Heliosphere#/media/File:Teilchendichte\\_Voyagersonden.jpg](https://en.wikipedia.org/wiki/Heliosphere#/media/File:Teilchendichte_Voyagersonden.jpg)

At the termination shock, the flow velocity of the particles decreases. The velocity falls below the speed of sound. This effect is caused by the interstellar medium, which slows down the speed. This effect is comparable with the headwind when riding a bicycle. The braking effect leads to a temperature increase and compression of the matter, whereby also the field strength of the solar magnetic field increases.

The first measurements and explorations of the boundary shock wave were made by the two Voyager probes. Voyager 2 detected an increase in temperature from about 11,000 K to 180,000 K, almost a twenty-fold increase. Voyager 1 reached the edge-on shock wave at a distance of 94 AU (about 15 billion km). Voyager 2, on the other hand, measured the temperature increase already after 84 AU (about 13 billion km). Since both probes contested different trajectories, it can be seen that the Termination Shock does not form a spherical shape, but is irregularly shaped. Furthermore, the Termination Shock is not an exact dividing line, but changes its appearance and distance from the Sun constantly. It depends on the activity of the Sun as well as on the activity from the interstellar space. Both probes crossed the rim-shock wave at different locations and measured the values at an interval of three years. The rim-shock wave is a very dynamic zone with constantly changing parameters. It is part of the transition from solar dominated to interstellar dominated space.

Link: [https://en.wikipedia.org/wiki/Termination\\_Shock\\_\(novel\)](https://en.wikipedia.org/wiki/Termination_Shock_(novel))

Link: <https://en.wikipedia.org/wiki/Heliosphere>