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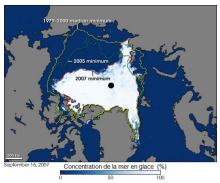

Ice levels at the North Poles, over the past 3 decades
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# Earth's Two North Poles Are Hundreds of Miles Apart

*The geographical pole and the magnetic one are drifting away*

Though the middle of the Arctic ice sheet is considered to be the "real" North Pole, there are, in fact, two North Poles on our planet, as there are two South Poles as well. While the geographic pole is simply a projection, determined by humans, the magnetic pole is another story completely. It's not an abstract representation, but the engine that allowed the use of compasses and other navigation equipments for centuries.  Even now, airplanes use all sorts of flight instruments that require the presence of the magnetic lines emitted by the magnetic North Pole (mNP), in order for them to work, although it always moves. During a single day, the mNP can circle around a designated point of origin by about 80 kilometers (50 miles), in a sort of elliptical movement. Each year, this pole travels about 40 kilometers (25 miles) in whichever way it's going. Its location in 2005 was northwest of Sverdrup Island, in Canada, at about 82.7° North and 114.4° West. The magnetic North Pole was first determined to be different from the geographical one in 1831, when explorers found it a few hundred miles to the south of its current location.

Since then, modern techniques have allowed scientists to theorize on its possible routes, but the exact mechanisms that drive its erratic movements are not yet fully understood. Outside of direct measurements, there is no other way of detecting its exact location.  The mNP moves in zig-zag across the Arctic, and predictions say it will go over the North Pole and then reach Northern Europe by as early as 2050. However, the geographic North Pole will remain as fixed as possible over the next billions of years, as it doesn't really exist in real life. It's a simple projection of the lines that account for longitude and latitude on every map. The points where they all meet are either the North or the South Pole.