# Count Down to the Melt Down

## World’s Ice Sheets Disappearing

NASA satellites are confirming everyone’s worst fears: that the polar ice caps are melting and much more rapidly than previously thought. Measurements from the satellites show that the ice in both the Arctic and Antarctic are melting at a rate twice as fast as previously thought; up to 36 cubic miles per year. Naturally, scientists all around the world are linking this event to global warming and the ever-widening hole in the ozone layer above the Antarctic.

The obvious consequence of melting polar ice sheets is a rise in the world’s sea levels. The Antarctic holds 70% of the world’s fresh water as ice – if all of this ice was to melt, the earth’s sea levels would rise by about 60 metres.

However, contradictory evidence suggests that although the ice sheet is melting at the edges, the centre of the Antarctic ice cap is gaining mass.

Research has also been conducted on the Antarctic ice core. By drilling deep into the ice, a sample is extracted and examined. Inside the ice, air bubbles are trapped at the time of forming and the contents of these bubbles enable scientists to study past climate patterns. Carbon dioxide levels can be measured and compared to ice more recently formed, thus indicating patterns in global warming.

The results of these studies have shown that although carbon dioxide levels remained relatively unchanged for hundreds of thousands of years, the last twenty years has seen a significant increase in carbon dioxide levels, which are continuing to rise at a rate not previously witnessed. It is also evident that this carbon dioxide was produced as a result of burning fossil fuels.

Unlike the Antarctic, which is largely uninhabited by either flora or fauna, the Arctic ice shelf supports many native people and animals. One major effect of global warming has been the splitting of the largest block of ice in the Arctic; the Ward Hunt ice shelf. This split lead to the polar bears and other animal species altering their migration routes, thus affecting the native people who rely on the animals for survival.