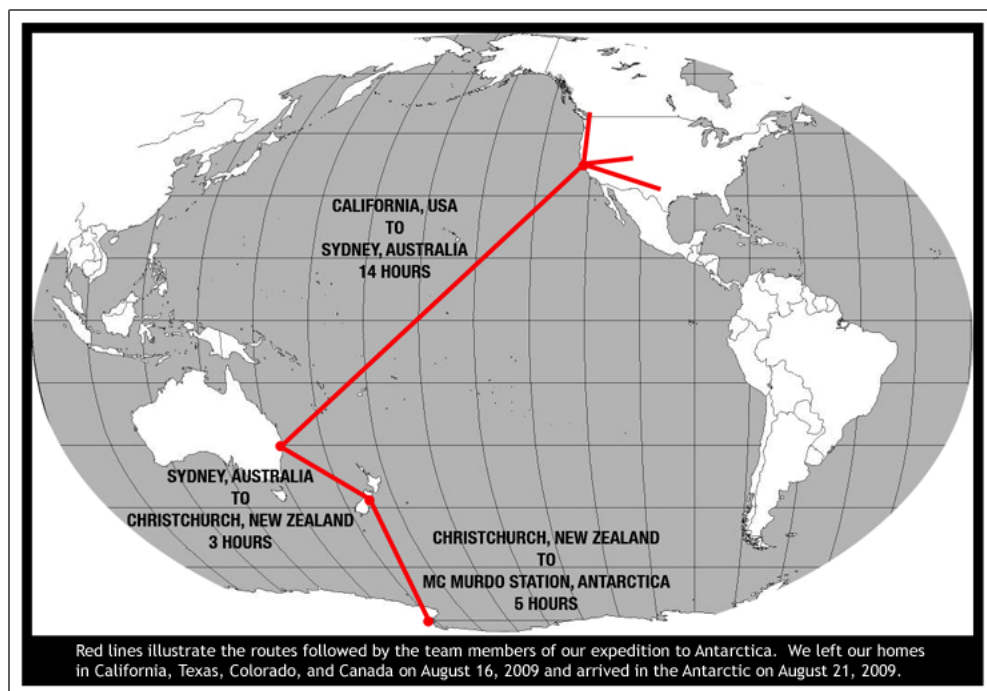




THE JOURNEY

The last plane left Antarctica this week and we are now isolated at the bottom of the world in McMurdo Station, 850 miles (1368 kilometers) from the South Pole. WinFly (Winter Fly in) is over. It will be five weeks before another plane arrives. No more fresh fruits or vegetables. No mail or packages. No new personnel or replacement parts. All expedition members and scientific equipment are "on the ice" - if anyone falls ill or is injured, if any of our scientific equipment breaks we will have to improvise and make do.

It took eight years of planning, months of packing and weeks of travel to get to this point. There are eight team members in our expedition that have travelled 9167 miles (14,752 kilometers) across the oceans to arrive on the sea ice surrounding Antarctica to study the underwater hunting behavior of the Weddell seal.



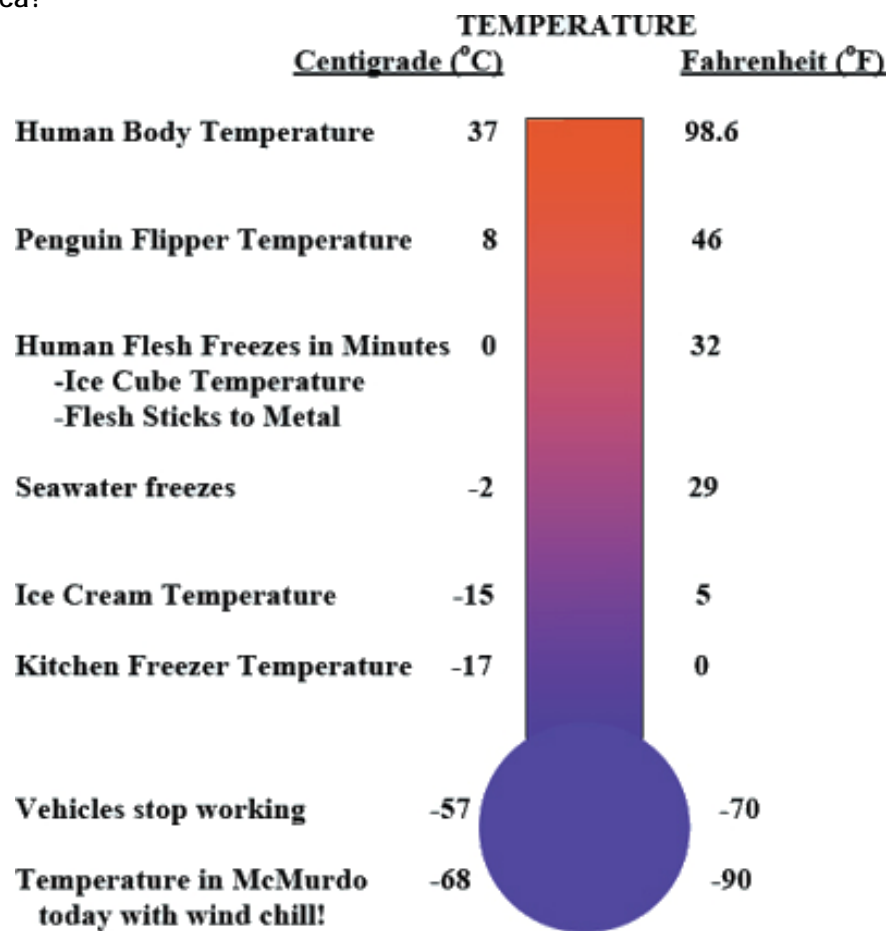
THE COLD

YouTube Video: "Night Chills: Life on Top of the Ice"
<http://www.youtube.com/watch?v=eJtbG-gqpal>

Cold Bodies

It is cold here- bitterly, bone-chilling, flesh-freezing cold at this time of year in Antarctica. Everyday the air temperature barely hovers over -42°F (-41°C). With wind chill we have experienced several days at -70°F (-57°C); two days edged to -100°F (-73°C). Working outside is dangerous as exposed skin freezes and turns white within a minute. There are times when the wind catches the side of our faces or noses, and you can actually feel the sting as your skin begins to harden into ice. Frostbite is an everyday threat and the cold leaves us in an exhausted state from constant, low level shivering.

How cold is Antarctica?



But the cold also brings beauty to the Antarctic winter. When temperatures reach below -121°F (-85°C) gaseous nitric acid literally freezes out of the stratosphere. The resulting ice crystals create spectacular, rainbow-colored Polar Stratospheric Clouds, called nacreous clouds. At dawn and dusk the clouds form, leaving our expedition members in awe.



However, hidden behind the beauty of the clouds is a deadly side- nacreous clouds are the sites of destruction of the ozone layer and home to the earth's "ozone hole". As if the cold were not enough, our expedition members have to be wary of severe sunburn due to the loss of the protective ozone layer over Antarctica at this time of year.

Cold Brains

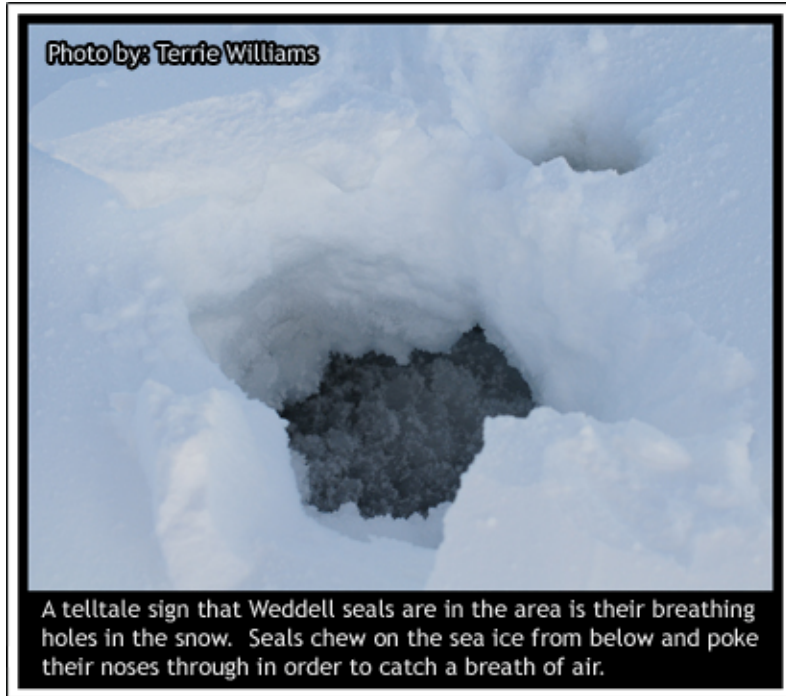
The extreme cold also affects our minds. With the sudden exposure to cold our thyroid hormones go into hyper-drive. While this helps our bodies generate more heat, it has a strange side effect. We begin to experience a decline in our short term memory. Remembering even the simplest things becomes difficult.

Simple requests, telephone numbers, names, and to do lists are quickly forgotten. Recognizing our handicap, we begin to use our "green brains". These are small green, government issued notebooks that we keep in our pocket to jot down notes. It is the closest thing to a blackberry on ice (which would be nice but don't work well when their batteries freeze at the -40 degree temperatures).



LIFE BELOW THE ICE

The severe weather has caused all of the Weddell seals to go into hiding; even an Antarctic seal is not willing to face the wind and the cold on top of the ice. Instead, they stay in the ocean water underneath the ice where there is no wind or blizzards, and the temperatures stay constant at a balmy 29°F (-2°C).



After a week of setting up camp on the sea ice we have yet to see one seal.

Yet, we know they are here. We've seen the holes that their noses leave in the ice when they breathe.

Even better than the holes, we can *feel* the seals' presence through our boots. Standing on the ice, if you are really quiet, and really still you can hear them calling to one another in the seawater below. A video camera dropped into one of the breathing holes reveals the under ice world of the Weddell seal.

Listen for yourself:

YouTube Video: "Night Chills: Seal Song"
<http://www.youtube.com/watch?v=0jh4HpCpQw0>

Next week - Shaquille O'Seal's Narrow Escape