



November 6, 2005

*An update from the highest, driest, coldest, windiest, continent on earth!*

Over the past week, our field work has been filled with thrills and also days and days of sitting in McMurdo waiting for the weather to clear. We were all stuck in McMurdo Monday-Thursday, so we made good use of the time by getting all the samples we had collected washed, labeled, cut, packaged and ready to be shipped back to the U.S. The material we don't take back with us in our luggage will not arrive on our doorstep until sometime in April, a long wait for our hard won samples!

On Friday, however, we were some very lucky geologists! Emerson, Peter and I were scheduled to go out to the Byrd Glacier, which is one of the gnarliest glaciers on the planet. It drains about 1,000,000 km<sup>2</sup> of the East Antarctic ice sheet and flows over 800 meters/yr (one of the fastest on earth). It is very heavily crevassed (fractured) and is usually thrashed by extreme winds, therefore few people have had the good fortune to get near it. In fact, Peter (who has over 20 yrs of experience here) predicted that the chance of us



getting to *any* sites along the glacier was less than 5%. But on Friday, we had the right weather and the right pilot and so landed at three sites along its edges! Our pilot, Jim Hoffey, was

brilliant and landed on small frozen ponds between the main part of the glacier and the cliffs along its sides. Some of the photos here show the places we landed. After landing, it was only a short walk with our sampling supplies to the glacial moraines where we spent about 2 hours collecting samples. Moraines are areas of dirty ice that contain rocky debris, which the glacier plucks from the sides of the valley as it flows past. At each site we collected over 150 pounds of rocks and



sediment for analysis back in the U.S. Some of the analyses will only take a few weeks, others will take over 8 months.

Our last site of the day was at Mt. Tuatara and here we experienced some of the typical Byrd Glacier winds. In addition to experiencing quite a bit of turbulence during our approach, the pilots made us wait in the plane for a few minutes after landing. It turns out that they were putting screws into the ice to anchor the plane down so it would be there when we finished our sampling!



We ended up naming one of the sampling sites after the pilot, calling it the 'Crazy Jim' site.

During our days stuck in McMurdo, the reporters at the Antarctic Sun (the local newspaper) had time to do a little story about our project. You should be able to find it on their website soon at:

<http://antarcticsun.usap.gov/>

We have six more flights to get in before we are scheduled to leave next week. We are hoping for good weather so we can finish up and come home

with the samples we set out to collect. I'm not sure if I'll have time to send another update from Antarctica given our predicted flight schedule, but hopefully this gives you a flavor of what we've been up to so far. If you have questions, feel free to email those and if you want to see more photos, you can find them on Emerson's website: <http://homepage.mac.com/emersonpalmer/>

We are extremely grateful to all the folks working here to support the science we are trying to accomplish. There are many creative and talented people in the world whose skills and determination make this all possible.

Thanks for your interest in our project!  
Kathy

