CECs starts a new Antarctic campaign

On January, 1st of 2016 the Laboratory of Glaciology and Climate Change of the CECs started a new expedition to the inner West Antarctica which will last about three weeks. This expedition is being led by the engineer Rodrigo Zamora and integrated by the geographer Felipe Napoleoni, and the surveyor engineer Jorge Hernandez, who will conduct geophysical measurements on the CECs Subglacial Lake, including a GPS positioning of a network of beacons installed in the last two years, and ice thickness measurements with radar in bordering sectors to the CECs subglacial lake. They will also conduct mass balance and weather measurements, including the installation of an automatic station of continuous recording with a real-time transmission, and feeding with solar panels and wind generators.

This expedition is a continuation of the CECs Antarctic program that has more than 13 years

Now we will update the expeditioners' blog.

Tuesday January 19th, 2016

As we said yesterday, we were picked up in the Basler at midnight when we had all unarmed. We loaded the plane between 8 (4 of the crew plus 4 of the base), including the two snowmobiles and all the equipment.

We took off with a clear sky, excellent visibility, and a very low temperature. It was a bit nostalgic to leave the place where we stayed for about 13 days performing many measurements that will give us interesting facts about the ice behavior on the CECs Subglacial Lake. These data plus what will be captured this winter, will give us a good idea of the dynamics of the area, the one we will visit back in a year.

We landed on the ALE Camp snow track at the Union Glacier and unload everything to go to bed in the CECs 1 module at 4 am. It was a tough night, but very profitable because we went to the "civilization" of the ALE Camp, a short time before the weather got deteriorated, otherwise we could have been shoveling snow for a week.

After a restful sleep, we got up at about 10 am. for breakfast in the ALE kitchen-tent. There we met dozens of customers who have just returned from the Mount Vinson, the South Pole, and the penguin habitat of Weddell. The breakfast was very good (as always) and we took

advantage of meeting again many Antarctic friends, as Pachi, Chago, Alan, Rob, Eddy, etc.

In the afternoon we were focused on installing the new weather station sensors that we have in our module and enable the recharge energy system with solar panels.

Monday January 18th, 2016

Today we continued dealing with the radar receiver which unfortunately did not revive. We think that the low temperatures affected it too much and some circuit died. Nevertheless, Jorge and Andy made the longest journey of the season with a motorcycle trip that took them 12 hours to measure the latest and most distant beacons installed in 2014 in the headwaters of the Rutford Glacier and Pine Island.

At the end of the day there were only 2 without measuring for being far away and with little time to return to the camp for what was coming for us.

It turns out that ALE informed us that we will be evacuated towards the Union Glacier tonight, provided that the weather conditions will be deteriorated in the coming days. In this context, once we finish writing this report, we will disarm the camp waiting for the Basler plane to pick us up. Hopefully it will come and we will go out without problems.

Sunday January 17th, 2016

Today was not precisely the seventh day of rest because we were very busy with the radars. Something happened to the receptors that were not working well, so all day we were trying to resurrect them. It must be the low temperature that has them "scraping out a living".

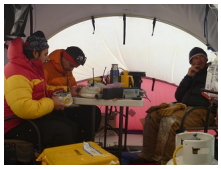
Alternatively, Jorge and Andy traveled by motorcycle to measure the three missing beacons located about 30 km to the East. Of these three, only one was found, presuming that the other perished in the crude Antarctic winter.

After several hours we went to rest, thinking how to solve the problem of the radar for tomorrow. If we do not we succeed, we will start to measure the last beacons located about 100 km to the West of the lake.

Saturday January 16th, 2016

Today we continued our measurements with snowmobiles of the beacons installed in the lake area. This time we measured 12 beacons, completing all the perimeter of maximum interest.

All the beacons were without problems, and only one of coligüe was missing (116x), it probably broke and fell. After 6.5 hours of measuring we returned to the camp to rest, eat lamb (Felipe, Andy and Jorge) and for a change, salmon (Rodrigo).



The temperatures were quite low, with a minimum of -23 at 16:00 hrs. Chilean time, but having no wind (or less than 10 m/s) there was no freezing problems. The only news is that one of the satellite phones died because of a frozen screen. In any case we have 3 phones more, so we do not have communication problems.

Friday January 15th, 2016

Today we had planned to go out to measure with GPS more beacons located in the CECs Subglacial Lake area but due to problems with the AWS, we had to stay repairing sensors and connectors, which kept us all day at the base. The weather was deteriorated in the afternoon,

so it was better to stay near our tents.

The wind increased a lot, so we had to repair and tense the tent poles so they cannot fly. In the evening we went to the sleeping-bag without major news, after eating something refreshing due to the cold day.

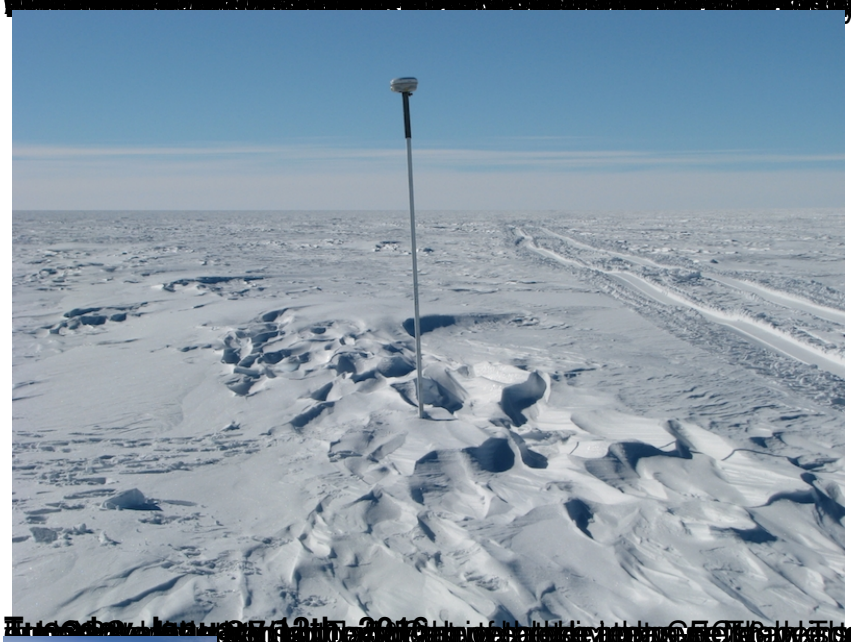
Thursday January 14th, 2016

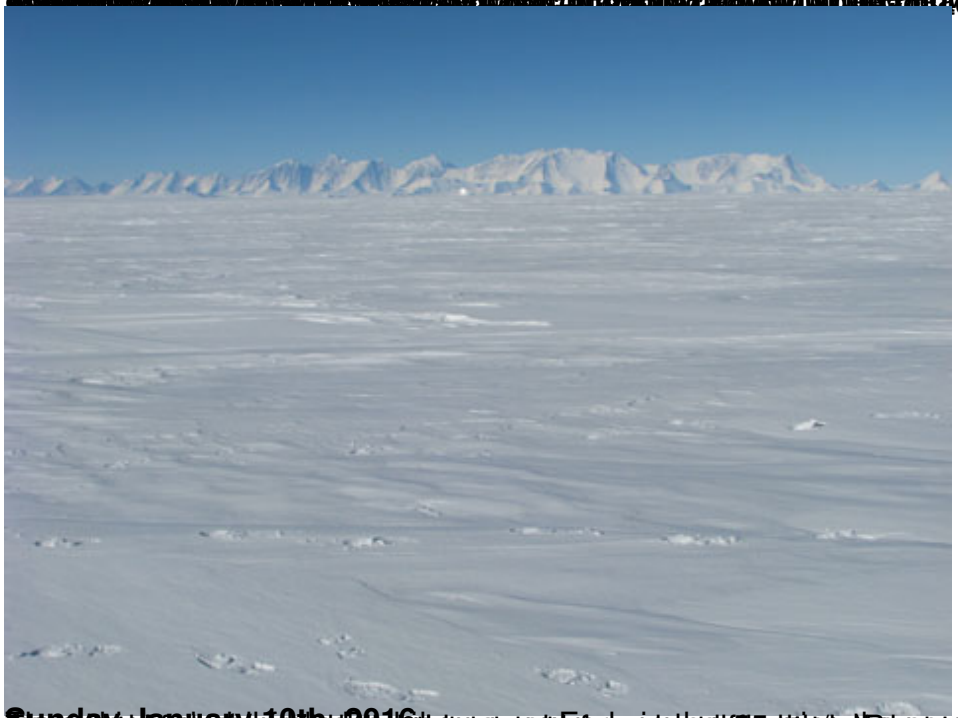
Today dawned clear and with a little less wind, so we went on the 2 snowmobiles to measure the beacons located on the continental divide between the Pine Island glacier, which drains into the Amundsen Sea, and the Institute that it makes it towards the Weddell Sea. This divide is at a higher height above the sea level (2060 m/asl.), so we expected lower temperatures.

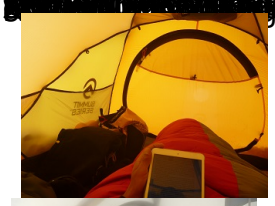
At the end of the day we traveled about 130 km. and measure all the beacons in the area (a total of 15), so the day's journey was successful.

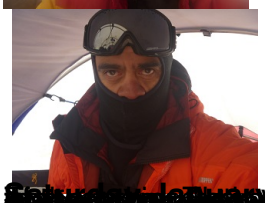
In general, the conditions of the snow surface was good for our traffic on the motorcycles, but the visibility was deteriorated. The temperature fell in the afternoon so we arrived to our base after 10.5 hours crossing very cold; we had to get into our sleeping-bags for more than an hour to recover. After that we could eat something to finally go to sleep.

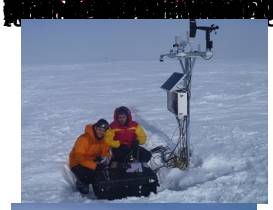
On the beacons located in the Pine Island basin, conditions were worse, windy and cold, while the temperatures at the Institute showed slightly more benign conditions. Beacons generally evidenced a low accumulation since last year, with about 20-30 cm. of snow.

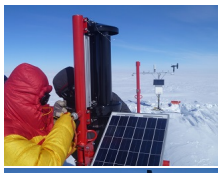












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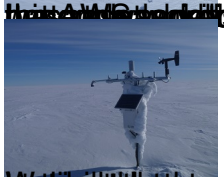

Monday January 4th 2016


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