

Alpha Ridge Test of Appurtenance (ARTA)

Newsletter #6

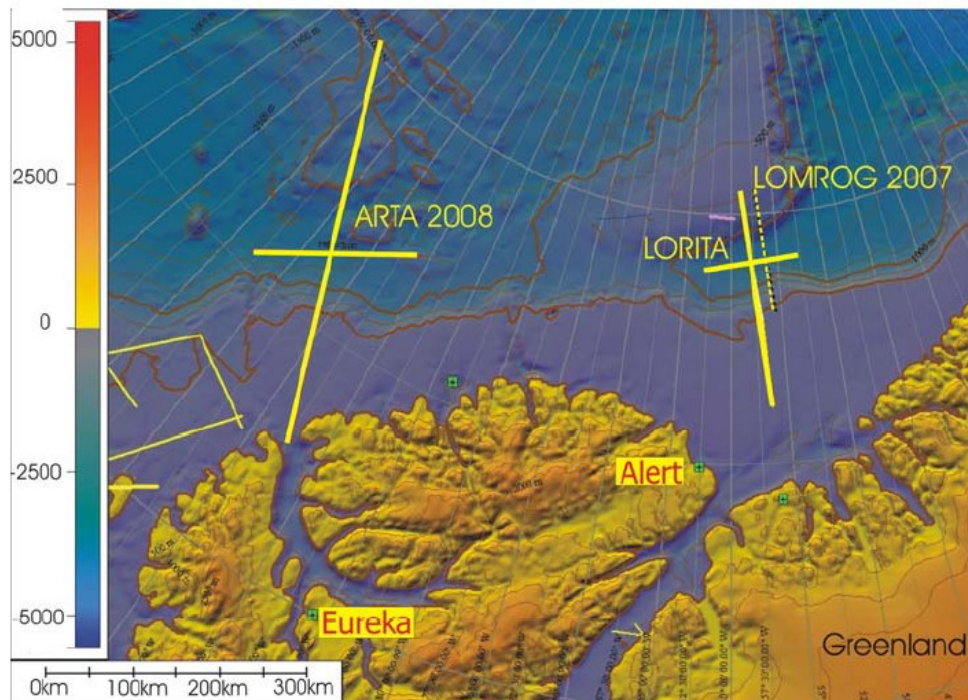
On Saturday (29 March) two helicopters with all the blasters went out to the shot-line and detonated the three explosives that had been deployed on Friday. They then picked up all the seismometers and recording boxes. The ice hadn't moved, the visibility was excellent, and they had no trouble finding shot sites and boxes. Ten of the recording boxes were brought back to Eureka by helicopter. The other twenty were left at the Icecamp and were brought back a few hours later by Twin Otter.

The data tracks were downloaded and inspected. The quality (the signal-to-noise ratio) is excellent, and everyone is very pleased. Only one recording unit had failed – the seismometer had been blown over.

The weather at the ice camp is still bitterly cold. When the helicopters arrived on Saturday, the temperature was minus 39 and there was a stiff wind, and the wind makes life miserable. This weather is hard on the helicopters and their pilots. If the pilots do shut down their machines, they must restart them every ten to fifteen minutes to warm them up. In fact, they won't start the day if the temperature is below -40. Eventually, we will have the facilities to 'plug in' the helicopters at the Icecamp, and the pilots won't have to worry so much about not being able to start them. And, of course, the temperature will be much higher in a couple of weeks.

This morning (Sunday) the Icecamp is covered by low cloud, so it is not accessible by aircraft. Instead, the Otters are moving fuel from Eureka to a fuel cache, which is about 100 km north of the Icecamp. The helicopters will use this fuel when they are working out there on the first leg of the experiment.

The map on the right shows the area of interest. In 2006 we worked on the Lomonosov Ridge. This work was known as the LORITA project. We did three seismic runs: the southern leg of the cross, the northern leg and the cross leg. We plan to do three



similar runs on the Alpha Ridge (the ARTA 2008 project). You can see from the scale at the bottom of the map the sorts of distances that have to be covered. The big inlet running north of Eureka is called Nansen Sound, and the Icecamp is just around the corner to the east of the mouth of the Sound. It is about 10 km off-shore.

The hydrographers out there are still working to make their airstrip long enough for a Buffalo aircraft. The strip right now is about 1800 ft long, and they need substantially more than that for the Buffalo. The small Bobcat (right) continues to give trouble, and, when it is down, the only machine they have to push snow is a small tracked ATV (see below), which is really not heavy enough to move hard-packed snow.



Eureka

Some of the people reading this may not know anything about Eureka and why it exists, so I thought I would include a few paragraphs I picked off the web. If you are really interested ... well, Google knows all.

This from: <http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1SEC876910>

(Written by D. L. Stossel)

“High Arctic Weather Stations ... began as the Joint Arctic Weather Stations [JAWS]. The plan for a network of Arctic weather bases was approved by the US on 12 February 1946, and on 28 January 1947 Cabinet formally agreed to participate. Between 1947 and 1950, 5 sites were selected and built jointly by Canada and the US (at Eureka, Isachsen, Mould Bay, RESOLUTE and ALERT) to provide the data required for the understanding and prediction of meteorological phenomena on a hemispheric scale and, more specifically, to improve weather predictions for North America.”



Isachsen and Mould Bay, which were strictly weather stations are both closed now, but Resolute, Alert and Eureka, which support more than just the weather station, are still in existence.

Best Wishes,
Ron Verrall

We'd like to hear from you. Send your comments to:

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