

Project Cornerstone

Newsletter #9:

31 March, 2009 (Tuesday)

Several people have asked me how we manage to talk to the rest of the world. How do our emails and our telephone calls go south?

Basically, all the Station communication with the outside world is by microwave and satellite. Alert is so far north ($82^{\circ} 30'$) that the geosynchronous satellites cannot be seen from here; they are below the horizon. However, Eureka, whose latitude is 82° almost exactly, can see these communication satellites – albeit just barely. Someone told me that the antenna dish that talks with the satellite sits on a high hill and is actually pointed slightly downward from the horizontal. The data to and from Alert is sent to Eureka via microwave repeaters – six of them – see map.

More information and pictures can be found on:

http://jproc.ca/rrp/alert_photos3.html

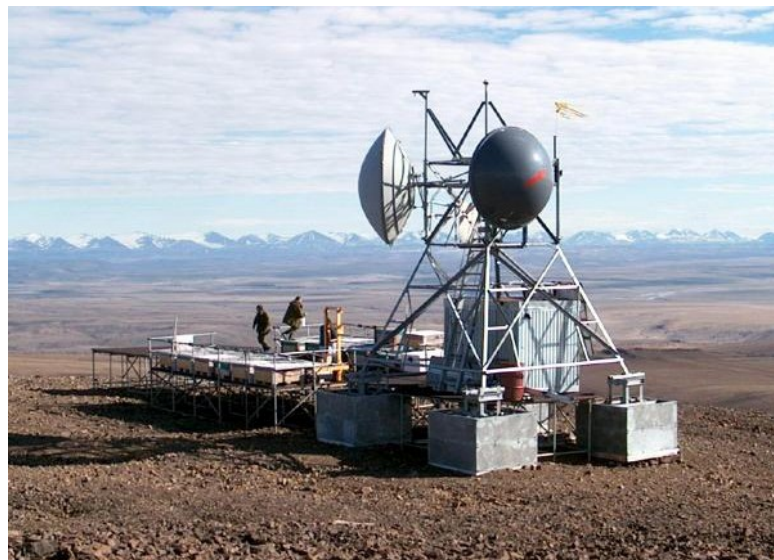
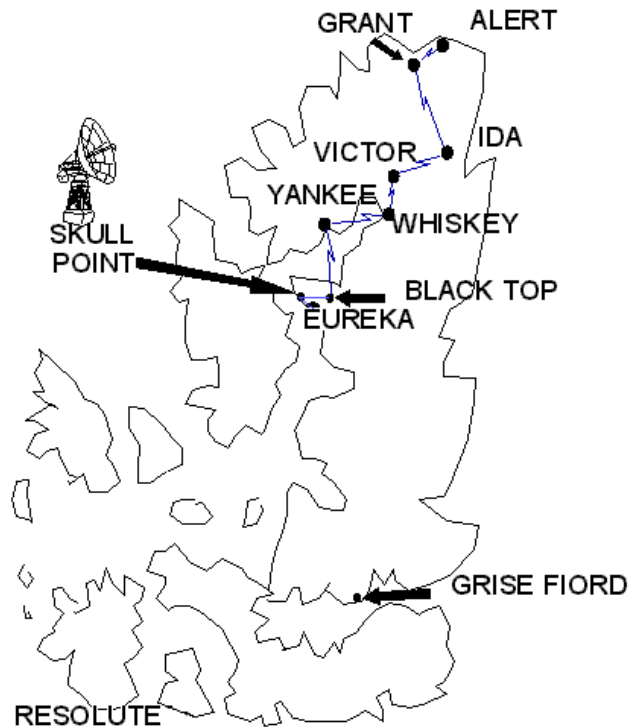
And more general information about Alert may be found on:

<http://jproc.ca/rrp/alert.html>

The picture to the right shows one of the repeaters in the summer. It also shows the lovely mountain scenery in this neck of the woods.

Today was another lovely day here at Alert. The temperature rose to a balmy minus 20 without any of the ill effects I usually associate with a warming trend.

The box lunches, which we started getting yesterday, eliminate the need to come all the way back to the station for lunch, and this saves a lot of time.



Black Top Mountain repeater station. The old style battery banks are to the left of the tower structure. (From the DND photo library via Joe Costello)

It also saves about half the gasoline we would usually use in the skidoos, and this is important because we are rather short of gasoline. The project happened with so little lead-time that we were not able to get enough fuel in place. So, now we husband our gas and hope that we can squeak through. (There will be no little trips of exploration.)

At the AUV camp we continued to test CATCHY and exercise the little ROV. In yesterday's Newsletter I forgot that CATCHY is an acronym and should be capitalized. Well, actually it's one of our tortured acronyms: Canadian AUV Through ice Capture and Hold sYstem (CATCHY). In reality, the thing is an AUV retention system, but we figured that the associated acronym would be a bit too catchy.

As we went through the various tests we did a lot of talking and thinking about next year: how big a hole would be needed, how big a tent, what would be sufficient, what changes would have to be made to CATCHY, how best to find the AUV once Garry's modems had given us the ballpark area, etc., etc. The arguments were good; everyone listened, and no-one got obstreperous. I



quite enjoyed myself. The picture shows Darrell Moulard, Dan Graham, Peter King and Richard Pederson having a break and a discussion. Missing from the picture are Chris Kaminski, Ron Lewis and Ron Verrall.

While we were putting CATCHY together, we had another visitor. A seal poked his (or her) nose into the open hole just below where the guys are sitting in the above picture. You can see it just below the boot. I know it's a poor picture, but it's the best we have. The seal stayed for about ten seconds – without any apparent concern – and then left. We are wondering if she makes herself at home in the warm tent when we are absent.



Garry Heard and his group spent part of the day recovering his modems from the grip of the ice. The modems were all suspended by a rope through a hole in the ice. But, several days had gone by, and the water in the hole was frozen solid. They took out the hot-water drill with the intention of melting out each hole and simply pulling up the modem. However, the road to information does not run quite so smoothly. The hot-water drill wouldn't work. To be more precise, the pump motor wouldn't turn. They fought the good fight but had to retire defeated. They lost the battle, but the war was not over. They jury-rigged a hook on a long pole, drilled a hole through the ice beside the modem's rope, stuck the pole down the hole and fished out the rope. This would be very difficult to do in thick ice, but since the thickness was only two and a half feet they had very little trouble. Don says that it took only seven minutes from starting to drill the hole to having the modem in hand. This is a lot faster than they could have done with the hot-water drill. That's Garry Heard with his shepherd's crook on the right and Derek Clark with one of the rescued modems.



I've been getting lots of suggestions for the names of the two new AUVs. One of these days I'll get organized and make a list of them all. Who knows – perhaps the powers-that-be will pick up on one of your suggestions.

This year the rooms at Alert have been very comfortable. They are not overheated, and they are reasonably humid. You don't, for example, get a shock when you reach for a doorknob or a light switch. In past years you could pull a quarter-inch spark. People were afraid to open a door. The higher humidity is also more healthy. Our noses and throats don't get so dry.

I've been having fun writing Newsletters since about 1998. This year the joint Canadian-Danish camp north of Ward Hunt Island is also putting out a Newsletter. Their problems are quite different than ours, and their letters are definitely worth a read. They can be found at http://a76.dk/lang_uk/main.html

The site contains Newsletters from other years, so you might have to hunt around a little.

Best Wishes, Ron Verrall

We'd like to hear from you. (ronverrall@gmail.com)