Operational Benefits of 4x4 vehicle over conventional Belt Vehicle in Antarctica

During and after the second world war, Icelander’s learned to use the 4x4 vehicles to their benefits. Due to the poor infrastructure the 4x4 vehicles quickly revolutionized transportation in the rural areas. However, the usability of these 4x4 vehicles was very limited when it came to heavy snow conditions, big rivers and various other challenges that people faced in the difficult terrain conditions of Iceland. In the 1970’s experiments with larger tires under the 4x4 drive conditions were started which became more popular during 80’s and sought after both for utility and recreation.

The Arctic Trucks operation was established by M/S Toyota Iceland in 1990 to bring structure and customer satisfaction to a “chaotic” market and dangerous, ill serviceable vehicles running on the streets.

In the present work, I will review how these 4x4 vehicles made the second revolution in Iceland, improving various type of logistics and introduced the remote areas of Iceland to local public and boost business such as tourism.

I will also focus on how The Arctic Trucks took this development forward and adapted it to use in other Polar Regions and the key benefits these vehicles have over the traditional belt vehicles. In Antarctica the Arctic Trucks have covered over 300,000 km with impressive statistics in fuel economy and speed over traditional belt vehicles. I will talk about where I see potential for our solutions to benefit scientific operation in tandem with current equipment and or independently in Antarctica and other Polar Regions.