



Betting on change

April 26, 2010

By Clive Thompson

Beluga is a German firm that specializes in “super heavy lift” transport. Its vessels are equipped with massive cranes, allowing it to load and unload massive objects, like multi-ton propeller blades for wind turbines. It is an enormously expensive business, but last summer, Beluga executives hit upon an interesting way to save money: [Shipping freight over a melting Arctic.](#)



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Beluga had received contracts to send materials on a sprawling trip that would begin in Ulsan, South Korea, head to the Russian port city of Archangelsk — located near the border with Finland — and wind up in Nigeria. Normally, this route requires Beluga’s ships to navigate an 11,000-mile route through the Suez Canal. But in 2008, executives for Beluga Shipping decided that global warming had eroded the Arctic’s summer sea ice significantly enough that their ships could travel the Northeast Passage along the northern coast of Russia. Previously, a cargo ship could only safely navigate that route if

an icebreaker went ahead, smashing a route through thick ice.

Now, a warming climate had — for six to eight weeks beginning in July — transformed much of the route into mostly open water, studded with ice floes that the Beluga ships could navigate. So its executives got permission from the Russian government to travel along the coast, paid a transit fee of “a comparably moderate five-digit figure,” and sent the ships on their way. Four months later, they’d finished the trip. Compared to the old Suez Canal journey, this shorter route saved an enormous pile of money: It cost \$300,000 less per ship in lower fuel and bunker costs. Global warming had boosted the company’s revenues by more than half a million dollars in one year alone.

When I interviewed Beluga CEO Niels Stolberg via email this spring, he said he envisions using the Northeast Passage regularly. Indeed, he’s planning on another trip this summer. He said that since the shorter passage requires generating far less CO₂, it’s “greener”; it’s also more ironic, since it was high concentrations of CO₂ that helped melt the route in the first place. “I am convinced,” Stolberg added, “that the Arctic will become an area of quite regular sea traffic at least during summer.”

If you looked merely at the realm of politics, it would be easy to believe that the question “Is climate change really happening?” is still unresolved. In recent months, skeptics have attacked climate science with renewed vigor. Doubters seized on “[Climategate](#)” — leaked emails from bickering atmospheric scientists — to argue that the evidence in favor of warming is being cooked. Other [skeptics unearthed shoddy parts](#) of the Intergovernmental Panel on Climate Change’s main report, such as the fact that it cited non-peer-reviewed

work by an activist group when it predicted that the Himalayan glaciers would melt by 2035. And all along, conservative politicians have hissingly denounced global warming as a shady liberal scheme: Senator James Inhofe of Oklahoma has famously called it “the greatest hoax ever perpetrated on the American people.” These attacks appear to be working. A spring Gallup study found that Americans’ concern over global warming peaked two years ago, and has steadily declined since.



But there’s one area where doubt hasn’t grown — and where, indeed, people are more and more certain that climate change is not only real, but imminent: The world of industry and commerce.

Companies, of course, exist to make money. That’s often what makes them seem so rapacious. But their primal greed also plants them inevitably in the “reality-based community.” If a firm’s bottom line is going to be affected by a changing climate — say, when its supply chains dry up because of drought, or its real estate gets swamped by sea-level rise — then it doesn’t particularly matter whether or not the executives *want* to believe in climate change. Railing at scientists for massaging tree-ring statistics won’t stop the globe from warming if the globe is actually, you know, warming. The same applies in reverse, as the folks at Beluga Shipping adroitly realized: If there are serious bucks to be made from the changing climate, then the free market is almost certainly going to jump at it.

This makes capitalism a curiously bracing mechanism for cutting through ideological haze and manufactured doubt. Politicians or pundits can distort or cherry-pick climate science any way they want to try and gain temporary influence with the public. But any serious industrialist who’s facing “climate exposure” — as it’s now called by money managers — cannot afford to engage in that sort of self-delusion. Spend a couple of hours wandering through the websites of various industrial associations — aluminum manufacturers, real-estate agents, wineries, agribusinesses, take your pick — and you’ll find straightforward statements about the grim reality of climate change that wouldn’t seem out of place coming from Greenpeace. Last year Wall Street analysts issued 214 reports assessing the potential risks and opportunities that will come out of a warming world. One by McKinsey & Co. argued that climate change will shake up industries with the same force that mobile phones reshaped communications.

Consider, as one colorful example, the skiing industry. Beginning ten years ago, the Aspen Skiing Company began noticing that European ski lodges were being slowly destroyed by warmer weather. Europe’s ski resorts tend to be located on lower mountains — about 6,000-8,000 feet high, compared to American peaks up around 11,000 feet — so they’re vulnerable to even extremely tiny increases in global temperature. The 2 percent rise in the 20th century was enough “to put a lot of them out of business,” says Auden Schendler, executive director of sustainability for Aspen Skiing, which operates two resorts spread across four mountains.

But now Aspen’s own season is getting shorter: “More balmy Novembers, more rainy Marches,” Schendler says. “That’s what we’re seeing, and that’s what the science suggests would happen. If you graph frost-free days, there are more and more in the last 30 years.” Climate-change models also predict warmer nights. Aspen Skiing has noticed that happening too, and the problem here is that nighttime is when ski lodges use

their water-spraying technology to make snow — “and if you make it when it’s warmer it’s exponentially more expensive.” The increasing volatility of weather overall — another prediction of climate change — poses a particular danger for ski resorts, because they operate in the red most of the year, making up their deficit during the ultra busy spring break in March. So if the weather is terrific for the entire winter but suddenly balmy during March break, that can ruin the whole fiscal year.

Schendler has also learned firsthand a point that climate scientists have been making for some time: With climate change, “warming” isn’t the only — or even the most serious — challenge. The sheer interdependence of complex ecosystems can grease you. For example, recent droughts in Utah have kicked up red dust clouds that settle on Aspen’s snow. This makes the snow melt more quickly (because the red absorbs more heat from the sun) while also making it too gritty to ski on.

Are all Aspen Skiing’s recent weather problems caused by global warming? It’s impossible to tell. But as Schendler notes, the last few years certainly mimic the precise effects that climate models predict, so it is at least a taste of what’s to come. During a recent dust storm on Aspen’s slopes, Schendler’s boss wandered into his office looking morose. “He said, ‘Auden, if climate change is the scary thing for the future, this is the apocalypse now. What if you get this in March?’” Schendler recalls.

Now, all this tricky weather hasn’t exactly destroyed Aspen Skiing; the firm could probably survive even worse stuff. The top of the mountain is so high “we can ski it in 50 years and it’ll be great,” Schendler notes. But it could certainly erode Aspen’s profits, and Colorado would suffer: The ski industry overall is a \$2 billion business for the state (pdf), employing fully 8 percent of the workforce. So to try and preserve its profit margins, the Aspen Skiing Company has recently become a loud voice in favor of congressional action (pdf) on the climate. In 2007, Schendler testified before the House Subcommittee on Energy and the Environment, calling for a cap on carbon emissions — among other things.

“Our attitude when we go to Congress is, look, we’re a business!” he adds. “We didn’t ask for this. We just started looking at the data and the science dispassionately and said, look, we’ve got a problem.”

Another industry that can’t pretend climate change is a myth is insurance. Insurance firms have always carefully studied real-world data to figure out what, precisely, constitutes a risky activity. As a result, they were among the first to notice that weather was getting more violent, and more unpredictably so.

“It’s just a logical consequence,” says Peter Hoppe, head of the “Geo Risks Research” division of Munich Re, the multinational reinsurance firm. “Global warming affects our core business. We have seen changes already in some readings.” Worldwide, Munich Re has found that “great catastrophes” — act-of-god weather events that cause more than a billion dollars of damage — have tripled since 1950. In 2008, even though there weren’t any Katrina-level disasters, weather-related events were so severe that “catastrophic losses” to the world’s economy were the third-highest in recorded history, topping \$200 billion globally — including \$40 billion in the United States. Hoppe doesn’t think global warming is all to blame; some of these events are likely due to natural cycles like the 30-year “North Atlantic Oscillation” that is currently warming the Atlantic. But Munich Re’s policy is that anthropogenic global warming is already making things worse, and that governments ought to act quickly while they still can.

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