

# Trade Looks Beyond Climate Change

**The Northern Sea Route and climate change are having their effects on trade lanes, but improved trade facilitation and infrastructure will have a lasting effect on how goods move in world trade.**

BY DAN MCCUE



**W**hen the *Yong Sheng* set sail from Dalian, a port city in northeastern China in the summer of 2013, the Hong Kong-flagged cargo ship, part of the Cosco Group's fleet, was seen by many as the herald of a new era in international trade.

Tantalizing, in a world in which trade lanes evolve at a glacial pace, the 14,000-ton vessel and its crew were doing something the Chinese government and media outlets around the world said was entirely new: sailing to Rotterdam, in the Netherlands, via the Northern Sea Route, a ribbon of icy water hugging the northern tier of Russia.

In an article published shortly before the *Yong Sheng* set sail on August 8, 2013, the *Financial Times* of London reported the ship and its cargo of steel and heavy equipment would reach its destination in just 35 days — shaving two weeks and nearly 2,400 nautical miles off a journey that typically entails sailing through the Straits of Malacca, a locale now familiar to even non-mariners due to the search for the missing Malaysian jetliner, and then through the Suez Canal.

Even before the *Yong Sheng* reached Rotterdam — in fact, before it reached Busan, South Korea, a stop intended to illustrate how other ports along the route would benefit from its exploitation — Russia's Northern Sea Route Administration reported it had authorized over 400 other ships to make the crossing last year.

So shrill did the commentary get as China's first commercial ship to sail the route approached its destination that the *London Guardian* was moved to proclaim the 11-year-old ship's transit to be among the most "audacious voyages of modern seafaring."

"Balderdash," respond those who know better.

Among these is Dr. Lawson Brigham, an Arctic shipping and policy expert and distinguished professor at the University of Alaska Fairbanks.

"It's all rubbish," he says.

"There are a lot of blithering politicians and all kinds of folks who don't know anything about the maritime industry that are talking about the viability of this and other supposed arctic trade routes. If you talk to Maersk Line or anyone who really knows about global shipping, you'll find

The Northern Sea Route taken by the *Yong Sheng* can shave up to two weeks off a voyage from China to Europe.

that whatever slight promise the arctic routes hold, they are not going to replace the Suez or Panama canals,” Brigham continues.

The hoopla over the *Yong Sheng*, he adds, was due more to savvy PR on the part of the Chinese and to theories about climate change than to a sober consideration of the facts, economics and the politics that will ultimately drive activity on the route.

“It [the *Yong Sheng*] isn’t even a true container ship,” Brigham says. “It’s a multi-purpose heavy lift ship.

“If you want to key in on something real about the Northern Sea Route across the top of Eurasia, the focus should be on Arctic natural resources — those of Russia and, to a lesser extent, Norway — and the ships that will be necessary to carry them to global markets.

“Forget Canada. Forget the Northwest Passage. Forget the Central Arctic Ocean. None of them are viable today,” he continues. “For all the changes in the Arctic Ocean — and I consider myself a climate change guy — they are not going to revolutionize global trade routes.”

### Reality Check

Obviously, Brigham is given to speaking his mind, offering opinion in cogent detail and in bursts of dialogue.

He continues to be dismissive of the import of the *Yong Sheng*. He is far more serious about and impressed by the 2012 voyage of a vessel that carried a shipment of liquid natural gas (LNG) eastward along the Northern Sea Route from Hammerfest, Norway, to Tobata, Japan, however.

Even earlier, he says, three German vessels made trips from east to west without the accompaniment of an ice-breaker.

“What we’ve seen on the Northern Sea Route is bulk carriers — not many, but a few — making experimental voyages carrying bulk materials, oil and LNG, and that’s why I would argue that 2012 is the far more historic event,” Brigham says.

“The Arctic routes, at least on the Russian side, are all about carrying natural resources out of the Russian Arctic to global markets, principally China, Japan and Korea,” he continues.

“Of course, the Chinese media hype Chinese activities, claiming that in the future 10 percent of the Chinese trade is going to go to Europe. All I can say to that is, ‘Maybe so, but we’ll see ...,’” he says.

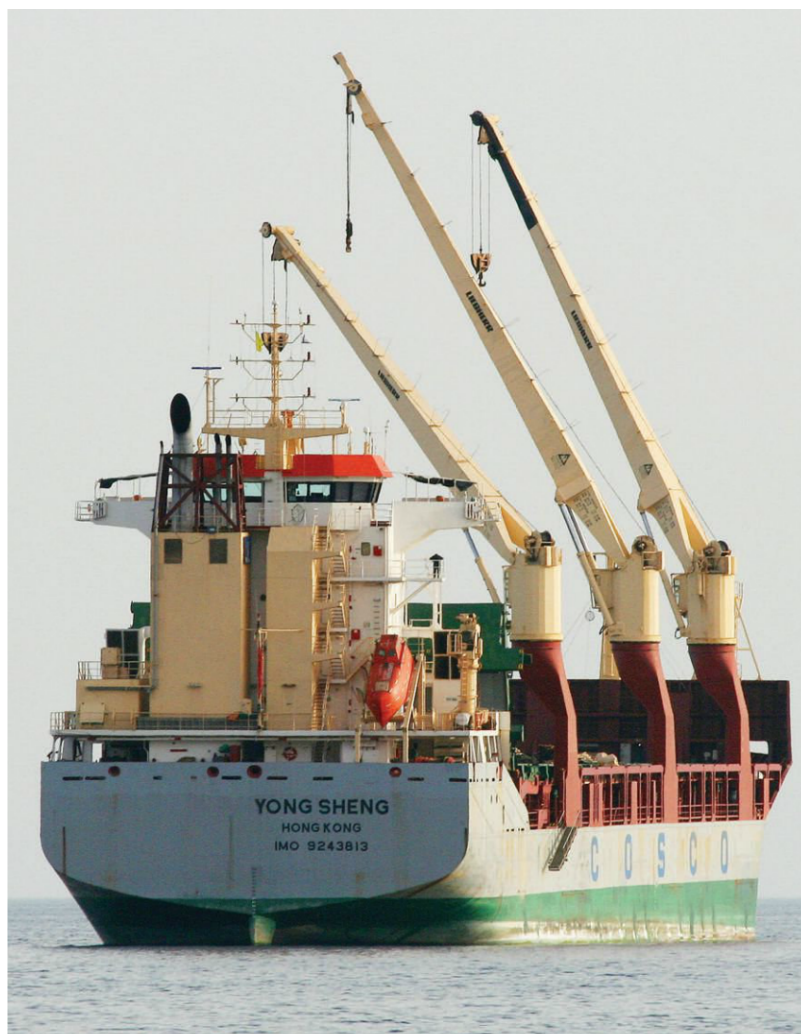
Brigham says in the end the development of the Northern Sea Route will be made by those with the biggest economic incentive to overcome its challenges, which, he says, are still enormous.

“You know, you see these maps of the Northern Sea Route published in China and Singapore, and I’m outraged by them,” he says.

“Well perhaps ‘outraged’ is too strong a word. I am, after all, a geographer,” he concedes. “But the problem is there is no ice in any of the maps you see all the time, and that’s not the reality.

“The Arctic Ocean is covered with ice nine months out of the year and has been for the past century and beyond.”

“Now, the ice is thinner and less extended — there certainly is greater marine access because of climate change and all that ... but there’s still a lot of ice in the Arctic Ocean,



which means you need an ice-capable ship,” he says.

“Think about the implication of that for a moment. An ice-capable ship can be anywhere from 20 percent to 100 percent more expensive than a normal ship, but the season for navigation on the Northern Sea Route is very short.”

“According to the Russians, there’s maybe a three-to-four month window during the summertime when you can reliably navigate the Northern Sea Route or do so while being escorted by ice breakers ... and maybe, under certain conditions, you might be able to push it to six months.

“But no one is talking about year-round navigation on the Northern Sea Route, where you go from ocean to ocean,” Brigham says. “So the question becomes, what do you do with the very specialized ships you need on this route outside of the Arctic navigation season?”

“How do you integrate these heavier and more expensive ships into your fleets?” he asks rhetorically. “In terms of making money, the maritime industry is a marginal industry as it is. It’s very challenging, and I think Arctic navigation adds to the variability, the complications and the costs.”

Also questioning the extent to which the Northern Sea Route may impact global trade lanes was Sean Doherty, director, head of logistics and transport industries, at the World Economic Forum in Geneva, Switzerland.

“My sense at the moment is the Arctic route isn’t going to have a major impact on supply chains and trade lanes any time soon,” Doherty says. “Longer term, who knows? But short-to-medium term, it’s highly unlikely.”

Like Brigham, Doherty doesn’t believe the current economics of the transportation industry would support it.

The multi-purpose vessel *Yong Sheng* made the voyage from Dalian to Rotterdam using the Northern Sea Route.

Source: Oystoy, Wikimedia Commons





The long-awaited Panama Canal expansion is now expected to be completed in 2015.

Courtesy of the Panama Canal Authority

"It's too against the grain," he says. "Over the past several years, clearly, the shipping lines have been investing in much larger ships, and the advantages of scale for those vessels only work if you're making multiple stops, as they do on the more traditional trade routes.

"Now, there might be an economic argument for the Northern Sea Route if you can make additional stops on it — in northern Russia, for example — but I think that's a pretty tenuous proposition, and one for which you'll need a different kind of vessel, and I don't see the investment going into that."

### An Evolving Landscape

Speaking more generally of the impact of climate change on global routes, Doherty, co-author of the WEF's "Global Enabling Trade Report," says he hasn't seen any wholesale moves in his work, but does feel port operators and logistics managers are taking a closer look at their vulnerability to disruptions caused by strong storms.

"A lot of people are waking up to the fact that while their port infrastructure may have been pretty safe in the past, more intense storms and higher sea levels may be putting them more at risk," Doherty says. "Now, if you're asking whether climate change is prompting people to consider near shoring, I would have to say no ... where you do see the impact is in people trying to optimize their production emissions, sourcing their manufactured goods from places that rely heavily on green power, hydro-electricity or gas as

a primary power source as opposed to coal."

Far more impactful on the future of global trade lanes, in Doherty's view, is the WTO Agreement on Trade Facilitation reached in Bali in December 2013.

The deal streamlines customs procedures and takes several steps to cut red tape and to reduce other traditional barriers to trade. It also includes provisions intended to benefit shipments to and from landlocked countries.

Importantly, it allows developing countries to tailor how they implement the agreement's provisions, and it provides them with technical assistance to speed their engagement.

"Now, of course, it's easy to dismiss such a deal as a couple countries agreeing to some not-amazingly ambitious things on a piece of paper, but I believe it is focusing much more attention on trade facilitation, and countries are beginning to take action and, in some cases, are potentially accelerating initiatives they were already pursuing to reduce or remove practical barriers to trade.

"If that continues, it could have a meaningful impact on export and import numbers, and it could have knock-on effects on domestic supply chains, particularly in emerging or less-developed economies," Doherty says.

He goes on to explain that one area where greater trade activity would occur if implementation goes as planned is the African continent.

"At present, African imports and exports to the rest of the world are not as high as they could be, and intra-Africa trade is even lower," Doherty says. "So that would be



something we'd expect to see grow if agreements removing administrative barriers, information barriers and infrastructure barriers were put in place.

"A simple parallel would be visas," he continues. "Now, clearly, this involves the movement of people, not goods, but when the process of getting people from South Africa to Nigeria, and vice versa, is complex and difficult, it doesn't support a lot of trade between those countries — the two largest economies in Africa. So if you could just remove the red tape in terms of visas, that alone would open up opportunities to trade."

Doherty says, interestingly enough, for all the attention the BRICs get when people talk about trade opportunity, they are actually "doing a little worse than you might expect when you look at their overall level of trade development."

"Part of that is that they are large economies and have large internal markets — giving them less incentive to look outside for trade — but even here, I think things are changing," he says.

"One thing that's driving the change in attitude is that the BRICs are now home to emerging multinationals who want to export to the rest of the world," he explains. "That's prompting these governments to engage more seriously in trade facilitation improvements in other parts of the world."

"Previously it was more the large Western multinationals that were banging on about improving customs in sub-Saharan Africa and Southeast Asia; now the BRIC economies are getting involved in that debate as well."

Of course, it's impossible to talk about the BRICs without talking about the expansion of the Panama Canal, which is now expected to be completed in mid-2015. Once finished, the \$5.25 billion project is expected to dramatically enhance — if not transform — critical linkages between Asia and the U.S. East Coast and China.

"This project is going to change the global maritime industry," declared Panama President Ricardo Martinelli when the new lock's 3,100-ton gates were delivered.

The question is what that change will look like and who the ultimate beneficiaries will be.

Since the project — undertaken to allow larger ships to pass through the canal — Maersk Line has ordered nearly two dozen ships that are too large to use the new locks.

At the same time, industry analysts now suggest that the flow of cargo and raw materials the other way — from the Americas to China and elsewhere in Asia — may be far more important than anyone previously thought.

Not long ago Jorge Luis Quijano, the Panama Canal administrator, told the *Financial Times* that he now sees trade growing between Asia and Latin America, with East Asia sourcing more and more raw materials — including iron ore, coal and natural gas — out of the Americas.

Given those expectations, other South and Central American nations are now trying to get in on the action — some seriously, others a bit more dubiously.

Nicaragua, for instance, is looking at the viability of digging an alternative to the Panama Canal. Guatemala and Honduras, meanwhile have both announced land bridge projects to link east and west. Even Mexico is said to be in talks to create such a link across the Tehuantepec Isthmus.

At the same time, a number of ports, ranging from Freeport in the Bahamas to Lázaro Cárdenas and Manzanillo on the Pacific coast of Mexico, are vying to recast themselves as significant transshipment hubs.

"One of the things I think is interesting is that what we might see is an interaction between the massive uptick in natural gas production in the U.S. and the opening of the new locks in Panama," Doherty says.

"Clearly, the oil and gas production sites along the U.S. Gulf Coast can use the canal as a means to supply Asia with

natural gas. Along with that, I do think many of the predictions are correct, and you will start to see a greater and greater flow of commodities, particularly from Brazil to Asia via the canal," he says.

"This brings us back to the idea of trade facilitation. If these countries can put in place simple administrative and technological improvements — and in some cases key infrastructure investments — the benefits can be quite large.

"We did a study last year which implied that if countries around

the world were able to make a certain level of improvement — not that everybody can go up to the level of Singapore, but if they were at least trying to get part of the way toward best practices — then you'd have something like a \$2 trillion global GDP gain, which is fairly large, and proportionally the gains would be highest in sub-Saharan Africa and Southeast Asia, places where growth is needed."

While it might surprise some that an Arctic expert has an opinion on the Panama Canal, Lawson Brigham is just that kind of surprising individual.

Many years ago, in fact, just before the widening of the canal got underway, he was among the trade experts who shared their perspectives with the canal operators.

At the time, Brigham was a member of the Arctic Research Commission.

"It was one of those situations in which they knew the right answers, but, in the interest of due diligence, they wanted to hear what we thought of the prospects for opening the Arctic routes to trade," he says.

"What we said was, 'The Arctic routes, whatever they may be, are not going to take away from your business,'" he continues. "As I said, they knew that. Then the Panama Canal Board said, 'Look, if in fact the Arctic routes prove to be extraordinarily viable and climate change does result in their being open year round, we'll just adjust our rates accordingly.'" WT

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— Lawson Brigham

For reprints of this article, please contact Cindy Williams at [williams@c@bnpmedia.com](mailto:williams@c@bnpmedia.com) or 610-436-4220 ext. 8516.