



SkySails engineer Stefan Wartmann, above, stands under a kite onboard the *MV Beluga SkySails* in the port of Guanta in the city of Puerto La Cruz, 320km west of Caracas, in February 2008. The *MV Beluga SkySails*, a bulk carrier, was the first new-built ship equipped with SkySails kite system. Since 2008, the giant kite has helped the vessel reach ports across Latin America, Africa and Asia.

PHOTOS: REUTERS



# Shipping faces turbulent ride on carbon-cutting quest

*The shipping industry produces more carbon emissions than Germany, but reducing these emissions means tackling idiosyncratic maritime laws, the vested interests of countries such as China that rely on shipping to fuel rapid economic growth, and convincing ship owners to embrace green technology*

BY MEGAN GOLDIN AND DAVID FOGARTY  
REUTERS, SINGAPORE

What's a natural resource that is free, produces zero carbon emissions and has been used to power ships since time immemorial? The answer is of course the wind. The graceful sailing ships that sent the likes of Christopher Columbus and Vasco da Gama to the Americas and India are long gone, though, replaced by vast iron vessels loaded with crude oil, minerals and neat stacks of shipping containers to feed the voracious global economy.

As a teenager, Wrage figured he could speed up his sailing boat if he attached a sports kite overhead. Two decades later, he has translated that idea into a kite system for large vessels such as bulk carriers.

"Wind is unbeatable because it's free and you don't need to transport it with you so you just use it as you need," said Wrage, whose company SkySails GmbH & Co KG makes giant kites that look similar to paraglider canopies for ships.

Kites propel ships faster than traditional sails, Wrage said, because they are dynamic, not fixed, and can move around to capture winds coming from different directions.

The system, he said, can save between 10 percent to 30 percent of fuel on a single voyage, a significant cost saving given that 60 percent to 80 percent of a vessel's operation costs derive from fuel.

## FREE AS THE WIND

Convincing shipping companies to buy costly green technologies, however, is easier said than done as the industry recovers from the economic slowdown and faces volatile fuel prices that make it difficult to calculate returns on investment.

A carbon emissions scheme, in which ships would be penalized for inefficient fuel use and rewarded for conserving fuel, would spur green investments in a conservative industry that has been slow to embrace new technologies.

"The most important business driver would be if there was a carbon emissions scheme in place," said Wrage.

"The most important thing is that we get a price on carbon so the industry has security and knows what is coming and knows where to invest," he added.

However, developing a carbon scheme for shipping is politically charged and highly complex as the vast majority of vessels sail under flags of convenience of other countries to avoid tighter regulations and higher taxes and labor costs.

Ships from countries such as Denmark, Britain and Germany are largely registered in developing countries such as Panama, Liberia and even land-locked Mongolia that, under the UN's Kyoto Protocol, have no duty to cut carbon emissions.

"If the whole shipping industry was viewed as a country, it would be the sixth or seventh biggest emitter of greenhouse gases," said Philip Roche, a maritime and trade lawyer at British firm Norton Rose.

Those emissions are set to keep rising as world trade grows. The International Maritime Organization (IMO) has estimated that greenhouse gas emissions from shipping could grow between 150 percent and 250 percent by 2050.

"So we're talking about a lot of emissions but at the moment the emissions don't belong to anybody at all," Roche said.

Under the Kyoto Protocol, only about 40 industrialized nations have to meet emissions targets between the climate pact's 2008 to 2012 first commitment period.

Developing countries are exempted from mandatory targets under provisions that recognize rich nations are responsible for most of mankind's greenhouse gas pollution emitted since the Industrial Revolution of the 18th century.

Poorer nations are meant to take voluntary steps under the guideline of common but differentiated responsibilities to take into their account the need to keep their economies growing to lift millions out of poverty.

But this guideline is now widely seen as out of date given the pace of emissions growth. China has overtaken the US as the world's top greenhouse gas polluter and India is the fourth largest, with its emissions growing rapidly to nearly two billion tonnes by 2007, or just below Russia's.

Developing nations balk at agreeing to mandatory targets as part of a broader climate pact and at last December's climate talks in Copenhagen would only agree to add a list of voluntary steps as part of the Copenhagen Accord.

## CARBON CONUNDRUM

The split over responsibility for emissions has proved just as divisive in the International Maritime Organization.

The UN body responsible for shipping usually deals with technical issues to reduce pollution and improve safety. For example, world nations have agreed to steps to progressively cut the sulfur content of shipping fuels and the nitrous oxide emissions from engines.

But mandating cuts to CO<sub>2</sub> emissions is another matter.

Due to the difficulties of obtaining a global maritime agreement that may end in failure if China and others fail to compromise, Roche believes regional schemes may be set up first.

The EU would likely take the lead followed by other regional blocs until a patchwork quilt of schemes are formed. Over time, they may eventually merge into one scheme to reduce CO<sub>2</sub> emissions from shipping.

However, this would be a painful route for the industry as ship owners and others would have to deal with multiple schemes rather than one global scheme administered by the IMO.

"I think it's unrealistic of the global community to expect the IMO to reach a global agreement on emissions ... when, at a wider level, the international community cannot agree a way forward, as illustrated at Copenhagen," said Roche.

Then there's the gnarly question of who do the emissions belong to? The country under whose flag the ship sails, the true country of origin, or the countries with which the ship trades?

"Do we attribute emissions to the flag state or do we attribute them to the shipping industry as a whole?" asked Roche.

And if emissions are attributed to the country where the ship is flagged then what would happen with ships flagged in developing countries that, under the Kyoto Protocol, are exempt from making carbon emissions cuts following the "common but differentiated responsibility" principle.

This runs completely counter to the cornerstone IMO principle of "no more favorable treatment" for any ship or any flag.

"If global regulations required that all ships flagged, say, in Germany and the UK must comply with emissions targets ... but ships flagged in developing countries do not have to comply, then in a New York minute all these ships will transfer their flags to those countries that don't have to comply," Roche said.

## The rebels'

CONTINUED FROM P13

In the meantime, there is Lucy Walker's anti-nuclear broadside, *Countdown to Zero*, and a plethora of films addressing the current financial meltdown. These run the gamut from Oliver Stone's slick *Wall Street* sequel through crusading documentaries such as *Cleveland vs Wall Street*. Then there is the exhaustive and bizarrely gripping *Inside Job*. Director Charles Ferguson made his debut with *No End in Sight*, which spotlighted the US occupation of Iraq; with *Inside Job*, he identifies a different kind of crime scene, buttonholing the culprits in their palatial

boardrooms and forcing them to confess.

I meet Ferguson on the beach, beside the million-dollar yachts. I'm not sure whether the location is ironic or outright indecent. "There's certainly a lot of shady money washing around this place," Ferguson says. "But I'm not opposed to money per se. What I have a problem with is people getting rich by causing a global financial crisis. I mean, if you have US\$100 million, why commit a crime in order to gain another US\$100 million? For me, US\$100 million would be fine."

This is a good place to show his movie, he says. Cannes and controversy go hand in hand. "I guess it's a chicken-and-egg situation.

People are always going to be making political films, particularly in times of trouble. But it seems obvious that the festival goes out of its way to support these films. It gives them the stage. It presents them to the world."

On Monday morning, the sun comes out, and the crowds gather for Godard. It's the moment we've been waiting for. Afterwards, there will be a press conference, but first comes the film; the master's crowning political statement. We sit in the dark and watch it unfold, on a cruise ship tootling between Algiers and Egypt, Palestine and Odessa. From time to time, the singer Patti Smith takes to lugging her guitar around the

ship's deck and through the cabins. "Knife and art," she tells us. "War."

What is one to make of it all? You might argue that Godard intends his ship as a metaphor for Western capital, sailing blithely through choppy global waters, but it's hard to say. If this is the word of God, he needs to speak more clearly.

*Film Socialism* wraps up with one last cue card. "No Comment," it says, and this turns out to be prophetic. We rush to the press conference, but there is no press conference. Godard has bailed; his final act of mischief. Later, he will release a statement in which he insists: "I will go until death for

this festival, but I will not take a step more." His non-appearance, he explains, is down to "problems of a Greek type." No one seems quite sure what this means: Is he expressing support for the Greek people, or could he not afford his fare?

Outside the press area, the mood is one of insurrection. The hacks are outraged, the organizers reportedly incensed, and for a moment it's like May 1968 all over again. Then the mood dissipates, as swiftly as it sparked, and we file off down the stairs in search of something new. Godard has gone, but a fresh generation of filmmakers has stepped in to pick up the baton.