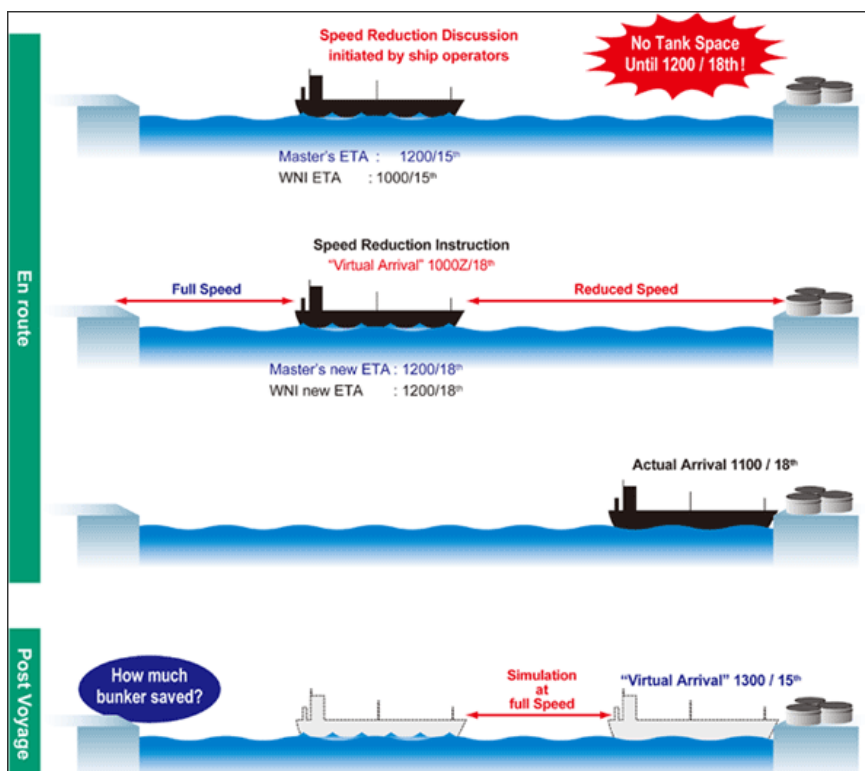


## Making Virtual A Reality

Facing a likely future of tightened environmental regulation and rising marine fuel costs, efforts are underway to standardize efficiency practices in the tanker industry. Chief among these efforts is the “Virtual Arrival” scheme developed by Intertanko and the Oil Companies International Marine Forum (OCIMF). Though not strictly speaking a slow steaming proposal, Virtual Arrival similarly encourages consensus between ship owners and ports on speed and arrival time as a way to alleviate port congestion. The proposal is a step toward formalizing efficiency practices in an industry that is likely to face greenhouse gas emissions regulation some time in the future. However, it is an initiative that will certainly take time to be fully accepted in the market.

Under the Virtual Arrival system, slots at discharge ports are assigned mid-voyage based on availability and weather conditions, as illustrated below. After destination berths have been assigned, the vessel slows to an agreed-to speed along a route designed to ensure minimal congestion at the port. Sometimes called “eco-routing”, the system aims to change the way voyage performance is measured, incorporating environmental concerns and recovering earnings lost by full steaming to port, only to wait days to load or discharge.

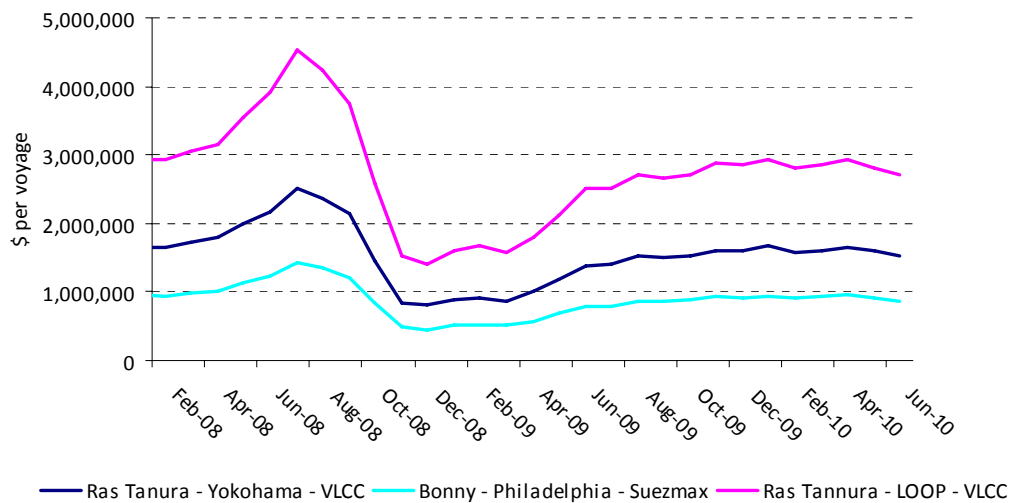


Source: Intertanko / Oil Companies International Marine Forum (OCIMF)

Not – So – Slow!

The International Maritime Organization (IMO) working group to promote the idea has recognized that for it to be successful it must be accepted by all involved parties. Attempts to introduce the Virtual Arrival clause into charterparties have received a mostly luke-warm reception thus far. Foremost among likely concerns are its economic impact, with both ship owners and charterers wary to accept terms they are unfamiliar with and reluctant to split any savings. Under the system, demurrage would be based on the vessel's "virtual" arrival at charter party speed, calculated by the ship's master and a weather routing company. Any bunker cost savings stemming from the difference between a vessel's actual and "virtual" arrival are split between owner and charterer. After falling sharply near the end of 2008, fuel costs have gradually risen to reach almost \$3 million on some voyages, as shown in the chart below. If these costs continue to rise over the long-term, potential savings through the use of Virtual Arrival could prompt additional interest in the scheme.

**Average Total Fuel Costs By Voyage**



Source: Poten & Partners

The routing companies required by the Virtual Arrival system are third-party assessors equipped and trusted to assess weather conditions and provide the most efficient route and speed for individual tankers. These assessors must then be trusted to provide an auditable post-voyage record in compliance with all legal requirements. Setting aside obvious questions of monitoring and regulation of such assessors, adding an entire group of professionals whose services will be required for standard tanker voyages may slow progress and raise skepticism about the project.

Reduced engine wear and tear has been touted among the Virtual Arrival system's benefits, but questions have been raised regarding the possible impact of running a tanker's main engine on at less than full capacity for extended periods. Skeptics have also countered that the Virtual Arrival proposal essentially mimics long-time industry practices under a charterparty clause referred to as "utmost dispatch" in which a charterer agrees to find the most economical route to complete a voyage.

The Virtual Arrival system was tested in September 2009, when BP Shipping used it on a voyage from Batumi in the Black Sea to the UK Isle of Grain. The voyage took 14 days and saved about 59 mt of high sulfur fuel oil, translating into \$24,800 in savings which were split between the owner and charterer. Subsequent tests of the virtual arrival system have produced fuel savings of ranging from 7% to about 20%, according to Weather News International (WNI), a routing company working with BP Shipping, Intertanko and the OCIMF to develop the concept.

## Preparing to Measure Emissions

Despite the failure of UN Climate Change negotiators in Copenhagen to incorporate shipping into their final Accord last year, there is a suspicion among some that regulation of maritime emissions of greenhouse gases at some level is inevitable. In March, the Marine Environmental Protection Committee (MEPC) of the IMO met in London to discuss competing proposals for market-based measures to regulate marine emissions of greenhouse gases. The MEPC is scheduled to meet again in September to review reports evaluating the proposals.

The Virtual Arrival scheme has gathered support partially on the expectation that some market-based instrument will be introduced. Proponents highlight that by encouraging a division of fuel and emissions savings between a ship's operator and charterer, the Virtual Arrival system incorporates port authorities and charterers into greenhouse gas regulation, whereas most other proposals have focused responsibility for shipping emissions solely on operators.

Well intentioned as they may be, any attempts to change well-worn shipping practices during a still-challenging tanker market are likely to encounter stiff resistance. Environmental efforts such as Virtual Arrival must be widely adopted in order to have a material effect. It is only a select few companies who are in a position to begin preparing now for regulation that may not materialize for years, if ever. Meanwhile, ship owners and charterers will continue to be driven by forces that have long encouraged efficiency-economics.

*Poten Tanker Market Opinions are published by the Marine Projects & Consulting department at Poten & Partners. For feedback on this opinion or to receive this via email every week please send an email to [tankerresearch@poten.com](mailto:tankerresearch@poten.com). For information on the services and research products offered by our Marine Projects & Consulting department or to contact our tanker brokers please visit our website at [www.poten.com](http://www.poten.com).*