



*This marks our third note in a series focused on the global choke points in marine transportation. In an economic market where ton-mile demand is weighed against vessel supply, any alteration in the ability to use these choke points—be that expansion or closure—would greatly affect the sea-borne trade map and corresponding freight rates.*

**Figure 1: Turkish Straits / Sea of Marma**



Source: Google Earth

A crucial link between Russia and Former Soviet Union countries with the rest of the world, the Bosphorus and Dardanelles Straits (collectively, the Turkish Straits—Figure 1) connect major ports in the Black Sea with the Mediterranean and beyond. Despite being considered one of the most treacherous waterways to navigate, due to sharp turns and limited visibility, nearly 140 ships traverse this waterway daily; roughly 11% being tankers. Geography and the sheer number of transient ships often result in bottlenecks, leaving companies to ponder transportation alternatives such as pipeline projects. However, the Turkish Straits will continue to be a major choke point in global shipping for the foreseeable future as over 130 million tons of crude and petroleum products are exported from Black Sea ports each year.

Turkey, having retained control of the Bosphorus and Dardanelles throughout its history as an independent country, claims rights to regulate travel through this waterway. The straits travel past 30 km of the country's land on both sides narrowing to as little as 0.75 km wide, and as shallow as 36 meters deep at its midstream. Turkey does not strictly enforce its control of this waterway, nor

does it levy tolls or restrictions on trade, and maintains that it will only shut down or regulate travel during an environmental or security crisis.

According to Turkish law, shipping could be slowed down or even halted due to economic, environmental, or political issues. To reduce risks such as an oil spill, Turkey has a nighttime restriction on ships greater than 200

meters transiting the straits. Winter conditions often hamper shipping as dense fog and lost daylight hours can combine to cause travel delays as lengthy as 20 days. Such factors are often taken into account when drafting charter parties, especially when considering time sensitive factors. Delays could be further compounded if the threat of terrorism one day leads the Turkey to require vessel inspections before transiting the straits.

The Black Sea (Figure 2) is home to many, major exporting ports. Novorossiysk, Russia and Constanta, Romania; south of this is Burgas and up north Odessa. The east coast of the Black Sea sees cargo exports from Batumi and Supsa in Georgia. Different grades of crude oil include Kumkol, Tengiz, and Azeri Light from Kazakhstan and Georgia, as well as Urals, CPC Blend and Soviet Export Blend from Russia. It is important to note the attractiveness of many of the Black Sea crudes. For example, Azeri Light can trade at a premium owing to its light /sweet attributes (35.1 API/0.16 Sulphur Content) which can allow for more attractive products after refining.

Though Russia diverted some of its oil exportation to ports in the Baltic Sea in 2006, planned production increases from Azerbaijan and Kazakhstan may push more oil products through the Straits soon again. Still, there remains a fairly steady market for Suezmax and smaller sized tonnage to move Black Sea cargoes.

**Figure 2: Black Sea**



Source: Google Earth

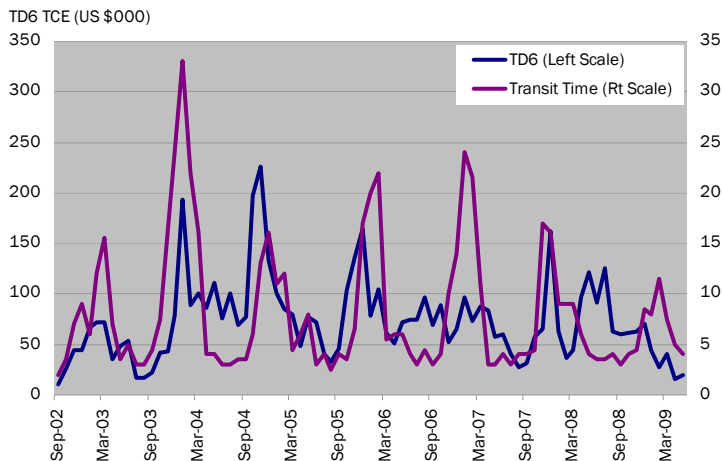


### TD 6 (135 mmt – Black Sea / Mediterranean)

Suezmax tankers transported roughly 9.45 million tons of crude per month this year (Jan-April) from the Black Sea/Eastern Mediterranean/North African region, as compared to 9.46 million tons per month in 2008. Interestingly, we have noticed that January kicked off 2009 with about 10.5 million tons exported, while volumes have decreased steadily to April's 8.4 million tons. However, while this export data is not yet available for May-August, we've counted a steady increase in TD 6 spot fixtures which will likely translate to export tonnage more in tune with levels seen earlier this year.

As we discussed, adverse weather and lost daylight in the winter months typically cause delays at the Turkish Straits; though the severity of these have decreased significantly since 2003. Nevertheless, in every winter since 2002 these spikes in transit times were met by jumps in the spot rate for moving Black Sea crudes on TD 6—that is except for last winter (see Figure 3). As the recession took its toll on the global economy, the growing supply of tankers in the midst of a collapsing demand for oil left all tanker rates on a free-fall regardless of delays at the Turkish Straits.

Figure 3: TD 6 v. Transit Time at Turkish Straits



Source: Chevron, McQuilling

Though speculation of an end to the recession is ringing in our ears, tonnage lists are still outweighing demand. With this summer coming to an end, and fixtures ex-Black Sea on a slow but steady climb, we question if the coming seasons will bring back delays to the Turkish Straits. And if they do, will we see responsiveness in the spot market as we had in the past, or will the supply/demand picture remain so unbalanced that any delays will have little affect on rates for TD 6? One thing we can count on--the logistics of transporting oil through the straits will remain highly uncertain.

Sources: Chevron, LMIU, Google Earth