Panama Canal: Out of the narrows
By Andres Schipani and Robert Wright

The waterway’s $5.25bn expansion is set to shake up global trade routes but infrastructure elsewhere is not yet ready

After a visit to Panama almost four decades ago, the novelist Graham Greene saw the canal as becoming “less and less” important every year, with “a smaller tonnage passing, a smaller revenue, a channel too shallow and locks too narrow for the great tankers”.

That fear of irrelevance has only intensified as the world’s ships have grown too big to pass through the canal. Today, about half of the container ships afloat or on order worldwide are too large to travel through its locks. The “Panamax” vessels historically designed to transit the canal are now relative minnows.

If that were not enough of a challenge, melting Arctic ice could also open a rival route to the north.

Eager to defend its status as one of the world’s great trade conduits, Panamanians decided to expand the canal in a national referendum almost seven years ago. That $5.25bn project is running about six months behind schedule but, when the work is finished in mid-2015, the expanded waterway is expected to transform some of the most critical trade routes between the Atlantic and the Pacific. Logistics companies such as railways are trying to gauge whether the expansion will ultimately greatly increase direct shipments to the eastern US.

Last week, celebrating the arrival of the canal’s titanic new lock gates, Ricardo Martinelli, Panama’s president, predicted that the expansion work “is going to change the global maritime industry”.

“We Panamanians are laying down a historical milestone,” he said before the unloading of the 3,100-tonne gates.

The deeper, wider channel will allow the passage of enormous vessels with up to three times the capacity of the biggest ships currently using the route. Panamanian officials predict that the canal, which celebrates its centenary next year, will increase the annual tonnage it carries to more than 600m tons in 2025 from 333.7m tons last year.

However, while Panama is making its bullish projections, regional infrastructure is not yet ready for the bigger vessels. Many US ports are unable to accommodate larger ships travelling via Panama. Several tropical ports are also vying with each other to become the deepwater hubs for the decades ahead but observers say port expansions are struggling to keep pace with the potential shift in shipping patterns.

In Panama, the expansion is 60 per cent complete. Dredging of the navigational channels along the narrowest section, the Culebra Cut,
is finished. In a colossal ditch, 8,000 workers wearing yellow helmets and fluorescent vests are building compartments for the sets of locks.

Somewhat cruelly for Panama, ship sizes have once again outgrown the canal while this work has been going on. Maersk Line, operator of the world’s biggest container fleet, has 20 new ships on order that are so vast that they cannot pass through even the enlarged waterway.

Originally, it was envisioned that the expansion programme would chiefly make it easier to ship manufactured goods from Asia to the eastern US. But ships travelling the other way have become far more significant than anyone imagined seven years ago. “In the future, we foresee trade growing between Asia and Latin America,” says Jorge Luis Quijano, the Panama Canal administrator, “with east Asia sourcing more and more raw materials out of Latin America.”

Despite a downturn in the commodity supercycle, many businesses remain hungry for lower transport costs to ship commodities such as iron ore, coal, soya and natural gas to Asia. Additionally, the flow of containerised Asian goods to Latin America is still strong, thanks to a robust growth in wages and domestic credit, which has been fuelling a consumer boom in the region.

Nevertheless, Panama is not going to be able to tap these shifting trade flows unchallenged. Nicaragua’s national assembly – dominated by the leftist Sandinista front – has backed a $40bn proposal for a little-known Chinese company HKND to dig a rival to the Panama Canal. Many already doubt the economic feasibility of a project three times longer than Panama’s 80km waterway.

Not to be left behind, Guatemala and Honduras have announced “land bridge” projects between the Atlantic and Pacific. There is also speculation in Mexico about Chinese investment in a connection across the Tehuantepec isthmus.

Container shipping lines such as Maersk, which has about 15 per cent market share in Latin America, are open-minded about such projects. “For me, any infrastructure investment that is going to facilitate trade between customers is welcomed,” says Robbert van Trooijen, Maersk Line chief executive for Latin America and the Caribbean. “I see myself as a user of those projects.”

Since Panama took control of the Canal in 1999, about 5 per cent of world trade has been passing through its locks. It earned $1.6bn in pre-tax profits last year on revenues of $2.4bn, and accounts for up to 10 per cent of the country’s economic output.

Panamanians are confident that regional rivals will not eat too deeply into their profits. “We don’t consider there will be any competition,” Fernando Núñez Fábrega, Panama’s foreign minister, told the Financial Times last month when asked about the Nicaraguan rival. For him, if everyone who wanted to build a canal did so, “Central America would end up like a Swiss cheese”.

The expansion of the canal is set to shake up the way shipping lines operate for reasons well beyond the size of vessels that they can use. Because bigger ships take longer to load and unload in port, container lines may send the new, bigger ships to fewer ports in the US or South America once they emerge from the canal. That will spark greater demand at both ends of the canal for new “feeder” services ferrying containers between smaller ports and larger “hubs” where the bigger vessels dock.

There is likely to be intense competition to become hubs. Neil Davidson, a ports analyst with Drewry Shipping Consultants, points out that, on the Caribbean side, the ports of Caucedo in the Dominican Republic and Freeport in the Bahamas already have deep enough water. Dredging is also under way at Kingston in Jamaica, while there has long been talk of a potential hub in Cuba. On the Pacific side, the Mexican ports of Lázaro Cárdenas and Manzanillo are likely to seek some transshipment work.

However, Alberto Alemán, who stepped down as Panama’s canal administrator in December 2012 after 16 years at the helm, hopes that much of the new business will come to Panama’s own ports, on both coasts. Panama offers logistical advantages. It is not only a regional airport hub but also has a large free trade zone, like Singapore and Hong Kong. The country is also Latin America’s fastest growing economy, with annual growth rates of about 10 per cent.

The high quality of Panama’s ports sets it apart from many in Latin America. Most of the region’s ports servicing the canal and with channels of 15 metres or more are in Brazil, and while, for example, Cartagena in Colombia has accelerated work, there is still a considerable way to go. “We have to adapt ourselves, and fast, to address the big infrastructure gap we have in the region,” says Esteban Diez-Roux, principal transportation specialist at the Inter-American Development Bank, or IDB. “Logistical costs in Latin America are about 50 per cent higher than in the rest of the world.”

According to an IDB study, the region needs to speed up the modernisation of ports, roads and other basic infrastructure “otherwise, it will not be able to take advantage of the lower costs that will be generated by increased transoceanic traffic of large ships”. After all,
delivering all the cargo from one 10,000-container vessel requires 18 trains, or 5,800 trucks or 570 Boeing 747 jumbo jets.

It is not only Latin American infrastructure that faces challenges in coping with the demands posed by bigger ships. Although $46bn has been spent in the US on bigger cranes, deeper channels and higher-capacity rail lines to cope with the new Panama Canal traffic, few US east coast ports are yet ready. According to Mr Davidson, the port of Norfolk, Virginia, looks best positioned to capitalise, having naturally deep water and newly improved rail connections. The Port of Baltimore, which suffers the disadvantage of being located near the head of Chesapeake Bay, well away from the main shipping lanes, can also handle the new bigger ships.

But most terminals in the Port of New York/New Jersey, by far the busiest container port on the US east coast, face significant problems because the Bayonne Bridge over the entrance to the main port area needs to be raised to accommodate the taller vessels. The $1bn project to raise the bridge’s roadway will not be completed until 2016. Environmentalists have also filed lawsuits protesting over plans to deepen the channel along the river leading to the Port of Savannah, Georgia, currently the US’s fourth-busiest container port.

Meanwhile, a growing number of shipping lines are introducing services from Asia to the US east coast via the Suez Canal, which can already handle the very largest container ships. The distance from the port of Yantian in China, where many goods are shipped to Newark, is about 4 per cent more on average via the Suez Canal than the Panama Canal.

Nevertheless, last April Maersk lowered its frequency through the Panama Canal for the transport of goods from Asia to the US east coast by more than 14 per cent by transiting instead via the Suez Canal, where it can deploy larger vessels and lower its unit cost. But Panama’s pricing policy also played its part.

In recent years, tolls have nearly tripled and could reach $450,000 per passage, depending on the cargo, via Panama, but it is estimated the new, larger container ships will pay between $800,000 and $1m per passage. “The toll will be lower by unit of cargo. The advantage will be for bigger vessels,” explains Rodolfo Sabonge, planning director for the Panama Canal Authority, which operates the waterway. “Currently, the toll is based on the ship’s capacity, but we are trying to move to a system related to what the boat is carrying.”

For Mr Alemán, the former administrator of the canal, the waterway’s selling points range far beyond the toll duties: “This is the only port in the world with terminals in both oceans, and that is a very powerful concept.”

Behind the concrete towers under construction, a vessel from Wallenius Wilhelmsen, the Scandinavian joint venture that operates the world’s largest car-carrier fleet, is lining up to cross the locks from the Pacific into the Atlantic. “There still is no other place in the world where you could be in another ocean in just a matter of hours,” Mr Alemán says.

Additional reporting by John Paul Rathbone, Jude Webber and Kathrin Hille

**Railways: Braced for a potential shift eastwards**

When a sudden surge in China’s containerised exports in 2004 overwhelmed California’s ports, shipping lines rushed to find alternatives. One of the most popular was to send more goods from Asia via the Panama Canal directly to ports on the US east coast, writes Robert Wright.

The question for North American railways – the canal’s main competitors to the north – is whether the canal’s expansion will produce another big shift eastward of goods heading into the US. Any further shift would provide a boost to big eastern railways – CSX and Norfolk Southern – and potentially take traffic from Union Pacific and BNSF, which operate in the US’s western two-thirds.

Wick Moorman, NS’s chief executive, says Pacific ports insist that there will be little change, while east coast ports are predicting a transformation.

But he, like many in the industry, says there are “too many moving parts” to predict the final effect of the enlarged canal. Still, a shift eastwards has already been significant.

“Ten years ago, 65 per cent of the shipping containers that NS handled came from a western railroad,” he says. “Last year, more than 65 per cent came in through an east coast port. Both have grown. It’s just that the east has grown faster.”

Matt Rose, BNSF’s chief executive, says he would be “really surprised” if there were yet another big shift. “These ships are getting bigger and bigger,” he says. “There’s a limited number of ports that can take these ships.”

But both Mr Moorman and Mr Rose expect their businesses to undergo big changes even if containerised traffic’s market share remains
Mr Moorman predicts that more US coal exports – many of which NS handles – could flow from the US east coast to Asia via the expanded canal. Mr Rose predicts new movements of bulk commodities – including grain from Gulf coast ports – to Asia.

But Mr Rose insists that the future for his company’s business handling containers remains robust. “We’re not going to reduce our capital investments in our intermodal business because of our concern about the Panama Canal,” he says.