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The landside impact of mega containerships

A study by Jean-Paul Rodrigue of the Department of Global Studies & Geography at Hofstra University in New York examined the implications of mega ships by carefully measuring what they entail ashore and afloat.

In this, he pointed out that larger ships usually imply less frequent port calls, particularly if a similar amount of traffic is involved.

Therefore, a service involving two port calls per week using panamax ships of 4 500 TEU could be replaced by post-panamax ships of 8 000-9 000 TEU calling once a week.

"Although this approach would improve the productivity of maritime shipping," he said, "it also implies externalities for hinterland transportation."

A panamax containership call can generate about 1 700 TEU, including loading and unloading, which would require about 1.7 hectares of stacking area.

"If no transshipment activity is involved, this volume would require about 850 single truck trips carrying two TEU," said Rodrigue. "Which, if those trucks were lined up, would extend for 14 kilometres.

"This volume handled by intermodal rail would require the equivalent of 4.25 trains extending over 8.5kms."

Now double these figures up, Rodrigue added, and you see just what the bigger ships mean for landside handling and transport functions.

And quadruple them and you come close to what size of impact each of today's largest megaships has on hinterland infrastructure.

Think of a queue of trucks 56kms-long or trains extending over 34kms, all for one shipload of containers.

Source: CSM FTW www.ftwonline.co.za