

IIT profs' collapsible container design set to change cargo trade

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Bangalore, May 5

MORE THAN 52 years after Malcolm McLean, a trucking entrepreneur from North Carolina, US, pioneered the use of containers for carrying cargo, two Indian Institute of Technology (IIT) professors have designed a collapsible container that could change the dynamics of the trade forever.

The new container, designed by Anoop Chawla and Sudipto Mukherjee from the mechanical engineering department of IIT, Delhi, can be collapsed or erected in less than four minutes.

A special platform, or base station, folds the containers hydraulically to one quarter its size. The process needs just one or two unskilled or semi-skilled persons. McLean's container, a reusable steel rectangular box for carrying cargo, is an industry standard that makes it easy to move these between specially-adapted container ships, trains and trucks. His idea led to a revolution in cargo transportation and international trade, but it also spawned a new problem – of moving back empty containers.

"About 20-23% of the world movement of containers is that of empties," says Avinder Bindra, a former banker who spent 26 years at Citigroup Inc. and four years with HSBC Holdings Plc. "The containers go loaded from Asia to the Americas, Europe and West Asia and come back empty. This involves tremendous cost and adds to the traffic at ports," he said.

Attracted by the huge potential in designing a container that could improve the logistics of moving empty containers, Bindra approached the IIT, one of India's best engineering schools, about three-and-half years ago when he was still in Hong Kong. He agreed to fund the project if IIT could take on the challenge of designing a collapsible container. The institute would hold some of the intellectual property rights and share part of the revenue with him. The team has now filed applications for patenting the design internationally.

The collapsible container, which has been shown to top container shipping companies such as Maersk Line, has attracted positive feedback.

"The new design will not require any additional equipment or redesign of existing equipment, because four folded containers stacked against each other will be the exact size of a regular container," said Mukherjee.

"Folding containers will surely reduce the quantum of space required and thus reduce the cost of transportation," said S.R.L. Narasimhan, secretary, Western India Shippers Association.

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A conventional container costs Rs 2 lakh, the collapsible one will cost 10-15% more

All new airports to have cargo handling units

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AIRPORT developers like GMR, GVK and CIAL will now have to provide comprehensive cargo facilities at all new greenfield airports. The government plans to make this condition mandatory in the proposed air cargo policy which is to be finalised within three months. Developers of greenfield airports like Hyderabad are building cargo facilities as they see business potential in this segment. However, they are not bound to do so.

The situation will change with the new policy stipulating building of cargo facilities with specified capacities. The proposed policy will also stipulate earmarking dedicated cargo area at all existing airports including those being developed by private operators. A consultant is expected to be brought on board making the inclusion of cargo facility mandatory in the new policy. Airport developers would also shoulder the responsibility of suggesting measures for reducing dwell time at airports. A separate system to speed up and spruce up ground handling facilities would also be suggested by the consulting firm.

"The new policy document will be shared with all stakeholders before being finalised by the government," ministry of civil aviation joint secretary KN Srivastava had said at a meeting with the industry. End-users will also be consulted at the concept and design stage for setting up new terminals. Through the policy, the government wants to ensure that cargo operations and terminals at all airports (AAI, PPP, private) are efficiently run and charges remain reasonable for freight forwarders, a government official said. Air freight is growing rapidly in India at both the domestic and international segments. Total international cargo is expected to go up from 1,020 tonne in 2006-2007 to 1,745 tonne by 2011-2012 growing by more than 70%. Domestic cargo movement by air is also expected to go up 56% from 528 tonne in 2006-07 to 828 tonne in 2011-2012.

The government had asked an inter-ministerial group (IMG) under the chairmanship of civil aviation secretary Ashok Chawla to find ways to reduce dwell time at airports. Meanwhile, the civil aviation ministry asked all airport operators including GMR group-led Delhi International Airport (DIAL) to reduce free period for import cargo to 72 hours from five working days. It also reduced free period for airlines for export cargo to 48 hours from four working days. While dwelling time for import cargo in Singapore is 12 hours, at Delhi airport it takes 165 hours.

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