



May 2019

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MAY 2019

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A unified approach

Peregrine Storrs-Fox, along with others in the cargo handling and container transport industry, is spearheading a campaign to bring awareness to issues that undermine safety in the intermodal supply chain and to improve the safety for people, ships and the environment

The campaign for cargo integrity focuses on all stakeholders recognising and doing the right thing. It is a diverse project seeking, at its roots, significant cultural/behavioural change. Certain elements may require legislative change and technology deployment, but much concerns the perception of risk. TT Club records indicate that as much as 66 per cent of incidents related to cargo damage in the intermodal supply chain can be attributed in part to poor practice in the overall packing process, including not just load distribution and cargo securing, but also the workflow from cargo classification and documentation through to declaration and effective data transfer. Critically, many of these attritional incidents could be avoided; these are calculated to cost marine, aviation and transport insurers in excess of US\$500 million each year.

There are weekly reports of fires and, on average, there is a major ship fire every 60 days that involves loss of life, or damage to the ship, disruption and costs. In the first three months of 2019 significant fires have occurred on no fewer than four container ships: *Yantian Express*, *APL Vancouver*, *Grande America* and *ER Kobe*. While it is not yet known in each case what caused these fires, it is most likely that the fires started in containers with undeclared or mis-declared dangerous goods.

Historically, there have been several well publicised ship-board explosions and fires involving such laden containers in the past few years. The tragedies of *MSC Flaminia* in July 2012 and *Maersk Hanan* in March 2018 both sadly cost multiple lives, likely resulting in insured losses in the hundreds of millions of dollars and overall economic loss to the industry of multiples of the insured element.

As the size of container ships increases, so does the potential risk and consequence of a large explosion or fire incident. Despite certain regulatory and technical advances, there is little doubt that the capability to respond to a cargo-related fire at sea has not progressed in proportion to ship capacities and the variety of commodities being carried. This burden of loss has been tolerated in part because fragmentation in each stakeholder segment means that most entities bear a portion of their own losses within risk appetite, but also because the global intermodal supply chain has developed complex practices, some of which detract from safety and certainty of outcome.

All types of cargo can be mishandled. However, wrongly classified, declared or labelled dangerous goods (DG) are seen as the primary hazard. The representative body of cargo handling and container terminal operators, ICHCA International, has extrapolated statistical evidence of the extent of the problem. It calculates that of an estimated 60 million packed containers transported around the globe each year, 10 per cent are declared to contain DG; that is six million containers that need varying degrees of special handling, positioning in terminals

and stowage onboard ships. Information from government inspections, which are biased towards declared DG shipments, suggests that more than 20 per cent are poorly packed or incorrectly identified in some way. That ratio converts to 1.3 million potentially unstable declared DG loads per year.

And that's just declared DG loads. It is more challenging to estimate the amount of DG cargo that goes undeclared. An initiative by Hapag-Lloyd, now being further developed by IBM, has seen the deployment of a screening system, Cargo Patrol, which attempts to identify cargoes that may be undeclared DG at the time a shipper books the move with a shipping line, leading to more detailed investigation before acceptance. From the "potential hits" thrown up by the system it would seem that between 2 per cent and 5 per cent transpire to be more than likely undeclared DG cargoes. Extrapolating these findings across the total annual global container trade, it might be reasonable to estimate that there are some 150,000 ticking container time-bombs each year carrying potentially volatile undeclared or mis-declared cargo.

Working with ICHCA, TT Club has been seeking, as one part of the cargo integrity campaign, to focus on the IMO inspection programmes for CTU/containers, where it has been admitted that the level of reporting is not sufficient to draw concrete conclusions, improve compliance or increase safety. The volume of inspection results is far from compelling and submitted by few countries. But these inspections are slanted towards declared DG consignments with the majority undertaken by the US, the IMO report showed. Even so, worrying deficiencies are discovered each year.

Of 79,780 units that were inspected in 2017, 52 per cent of all incidents involved placarding and marking of container transport units, while 9 per cent related to the marking and labelling of packages, according to filings to the IMO by Sweden, Finland, Chile, the US, China, Canada and South Korea.

On analysing reports submitted to the IMO in the past, TT Club has established that the number of member states reporting on their inspections, in comparison with those with membership of the IMO, has always been less than 10 per cent and currently stands at about 2.5 per cent; on average only four or five of the 170 member states regularly report. Of the inspections that are carried out, as many as 75 per cent are typically in the US. Obviously, this is an

extremely low rate of inspection and is insufficient to enforce the regulations, derive change requirements or provide evidence of frequent transgressors in terms of shippers and commodities.

The Cargo Patrol initiative and the efforts of IBM to make it accessible to all lines is an example of a communal approach to improving safety surrounding the transport of containers both on land and at sea. This sort of cooperation among the shipping lines and others (including TT Club) began some seven years ago with the founding, by five of the top liner operators, of an organisation aiming to capture key incident data to provide an early warning of worrying trends, whether relating to cargoes that display dangerous characteristics or unsafe practices in the container supply chain. The cargo incident notification system or CINS (www.cinsnet.com) now has a membership that includes some 18 liner operators, representing more than 70 per cent of container slot capacity.

Nor is the need for more transparency limited to shipping lines; many other actors in the supply chain, most notably shippers and forwarders who are responsible for packing of the containers and the crucial initial declarations of what they contain, as well as ports and terminals, must become more knowledgeable about safety procedures and more vigilant in minimising errors. Procedures governing DG handling around the world, for instance, are complex. Each consignment has to navigate the chosen carrier's own house policies, physical ship constraints and any restrictions applied at ports/terminals at the point of loading, transit, transhipment and discharge. The complexity and lack of standardisation can be bewildering even to the most experienced of shipper and exacerbates the possibility for error or failure to update.

It is also intensely inefficient and hugely burdensome for the lines and other stakeholders. As a result, Exis Technologies, with the support of TT Club and its sister insurance mutual, UK P&I Club, has developed a portal integrating information on such restrictions. The Hazcheck Restrictions Portal is designed to simplify the end-to-end management of DG booking processes, taking account of port, terminal, carrier, ship and partner line restrictions. Cooperation is urged, ports/terminals and liner operators can upload their DG handling policies and restrictions into the portal free of charge, allowing use by shippers, forwarders and others involved in the movement of such goods.

The need to deliver the message of cargo integrity throughout the supply chain is clearly evidenced, so, additionally, TT Club has updated and revised the "Book it right and pack it tight" publication, which provides a thorough introduction and guidance on the provisions of the IMDG Code.

While training to achieve "competence" - or the ability to do a job properly - is critical and

required by law, it needs to be followed through. This means that the training records not only should be maintained but also available. A lack of enforcement undermines the effectiveness of the system. The importance of carrying out due diligence was set out in relation to the CTU Code (www.unece.org/trans/wp24/guidelinespackingctus/intro.html) in the IMO Circular MSC.1/Circ.1531. While this envisages checks being undertaken to seek assurance in relation to a contractor, it also provides a good model for such a service "provider" to "know your customer".

The CTU Code stands as non-mandatory international law. Structured so that it may be incorporated into national legislation, the entire freight industry should recognise that many jurisdictions will rely on this detailed guidance in any litigation as demonstrating good industry practice. TT Club stresses that all stakeholders need to become familiar with the contents of, and develop ways to implement and encourage compliance with, the CTU Code.

An increased level of training of those employed by shippers, consolidators, warehouses and depots to pack containers and other transport units is repeatedly demonstrated by the consequences of inappropriate load distribution and badly secured cargo within CTUs, including bodily injury. As a result, TT Club commissioned Exis Technologies to develop e-learning training courses for the transport industry, CTUpack e-learning™.

While the IMDG Code is mandatory and all IMO member states are required to incorporate its requirements in national law, enforcement is little known and inspections (on which evidence of transgression is reliant) are few and far between.

TT Club, working with partners, will continue to put pressure on UN agencies, governments and the full range of direct and indirect stakeholders involved in the intermodal supply chain, recommending changes to improve safety and identify practices and behaviours that can undermine certainty of outcome for trade in general and presents increased risk for people, ships and the environment.

It is clear that the effectiveness of TT Club's call for cargo integrity must take a broad approach, not relying on the power of regulation or the vigilance and discipline of carriers or port operators, but carrying the safety message far and wide, including engaging with entities involved in fiscal, health, security and anti-trust regulation, and embracing technical innovations that can assist in monitoring and condition reporting, for example. Those involved in inspections, surveys and advice to the packing industry globally are thus among key potential agents of the significant culture change that is required.

• This is an extract of the full article, which is available online at www.maritime-risk-intl.com **MRI**



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