

Containers Lost At Sea – 2017 Update

In 2016, the international liner shipping industry transported approximately 130 million containers packed with cargo, with an estimated value of more than \$4 trillion. Proper packing, stowage and securing of containers and reporting of correct weight is very important to the safety of a container ship, its crew and its cargo, to shore-based workers and equipment, and to the environment. However, even with proper packing of the cargo into the container, correct container weight declaration, and proper stowage and securing aboard ship, a number of factors ranging from severe weather and rough seas to more catastrophic and rare events like ship groundings, structural failures, and collisions can result in containers being lost at sea.

In the past, obtaining an accurate assessment of how many containers actually are lost at sea was a highly speculative process. For many years, there were widely circulated, but unsupported and grossly inaccurate claims that the industry might lose as many as 10,000 containers a year at sea.

Ocean carriers operating the containerships, which the World Shipping Council (WSC) represents, remain the best sources for accurate information on this subject.¹ Therefore, in an effort to provide greater clarity and a more accurate assessment of the number of containers lost at sea on an annual basis, WSC undertook the first survey of its member companies in 2011, with updates in 2014 and 2017, and has published the results to make the information readily available to all interested parties.

¹ The WSC's member companies operate 80 percent of the global containership capacity; thus, a survey of their losses should provide a valid estimate of the number of containers lost at sea. More information about WSC and the liner shipping industry can be obtained at: www.worldshipping.org

Methodology of the Surveys

In each of the surveys conducted in 2011, 2014 and 2017, the WSC member companies were asked to report the number of containers lost overboard for the preceding three years. For the 2017 report, all WSC member companies responded and together, they represent 80% of the total global vessel container capacity. WSC assumes for the purpose of its analysis that the container losses for the 20% of the industry's capacity that is operated by carriers that did not participate in the survey would be roughly the same as those of the 80% of the industry that responded.

The total annual figure reported by WSC members is adjusted upward to provide an estimated loss figure for all carriers, both WSC members and non-members, and arrive at a total industry figure. As expected, some carriers lost no containers during the period, while others noted a catastrophic loss, which for the purposes of this analysis is defined as a loss overboard of 50 or more containers in a single incident. Catastrophic losses are rare, but the total number of containers lost in such events represents more than half of all containers lost.

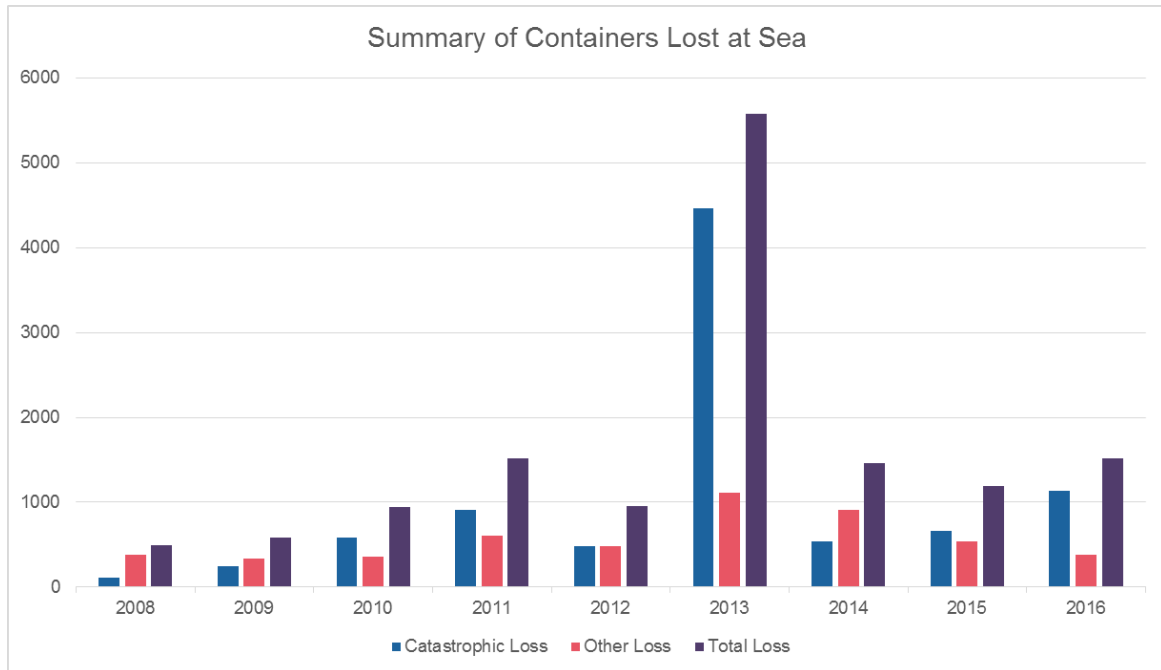
Based on the 2011 survey results, the World Shipping Council estimated that on average there were approximately 350 containers lost at sea each year during the 2008-2010 time frame, not counting catastrophic events. When one counted the catastrophic losses, an average annual total loss per year of approximately 675 containers was estimated for this three year period.

In the 2014 survey, WSC received reports from carriers on losses during 2011, 2012 and 2013. From those results, WSC estimated that there were approximately 733 containers lost at sea on average for each of these three years, not counting catastrophic events. When one includes catastrophic losses (as defined above) during these years, the average annual loss for the period was approximately 2,683 containers.

This larger number in 2014 is due primarily to two factors: the complete loss in 2013 of the *MOL Comfort* in the Indian Ocean and all of the 4,293 containers on board – which remains the worst containership loss in history; and, in 2011, the grounding and loss of the *M/V Rena* off New Zealand, which resulted in a loss overboard of roughly 900 containers. Both of these incidents involved complete and total vessel losses.

The most recent 2017 survey gathered input for 2014, 2015 and 2016. All WSC member companies responded, and additional information was made available on certain non-member catastrophic events. For each of the three years surveyed, the average number of containers lost at sea excluding catastrophic events was 612, which is about 16% less than the average of 733 units lost each year for the previous three year period. When catastrophic losses are included, the total containers lost at sea averaged 1,390 with 56% of those lost being attributed to catastrophic events. This is a 48% reduction from the average annual total losses of 2,683 estimated in 2014.

Analysis of the Nine Year Trends



Upon review of the results of the nine year period (2008-2016) surveyed, the WSC estimates that there were on average 568 containers lost at sea each year, not counting catastrophic events, and on average a total of 1,582 containers lost at sea each year including catastrophic events. On average, 64% of containers lost during the last decade were attributed to a catastrophic event.

The data consistently demonstrates that container losses in any particular year can vary quite substantially based on differences in weather and other unusual events. The data also consistently shows that the majority of containers lost at sea result from catastrophic events. For example, in 2013, there was a total loss of 5,578 containers – 77% of which occurred with the sinking of the *MOL Comfort* in the Indian Ocean. The tragic total loss of vessel *El Faro* occurred two years later in 2015. All containers on the *El Faro* were lost and this event alone accounted for almost 43% of the total containers lost into the sea in 2015.

Active Safety Improvement Initiatives

While containers lost overboard represent about one thousandth of 1% of the roughly 130 million container loads shipped each year, the industry has been actively supporting a number of efforts to enhance container safety that should help reduce the number of containers lost at sea, including:

- **Amendments to the Safety of Life at Sea (SOLAS) Convention:** In November 2014, the International Maritime Organization (IMO) adopted changes to the Safety of Life at Sea (SOLAS) convention requiring verification of container weights before packed containers may be loaded aboard ships. This is an effort WSC advocated in support of for many years. The requirement making container weight verification a condition for vessel loading became legally binding internationally on July 1, 2016. Misdeclared container weights have contributed to the loss of containers at sea, as well as to other safety and operational problems. For more information about this issue, visit: <http://www.worldshipping.org/industry-issues/safety/cargo-weight>
- **Code of Practice for Packing of Cargo Transport Units (CTU):** The IMO, the International Labour Organization (ILO), and the United Nations Economic Commission for Europe (UNECE), with industry support, have produced a code of practice for the packing of CTU, including containers, outlining specific procedures and techniques to improve safety, such as how to ensure correct distribution of the weight inside the container, proper positioning, blocking and bracing according to the type of cargo, and other safety considerations. The code was approved in 2014. For more information about this and other initiatives related to the improved safety of handling containers, visit: <http://www.worldshipping.org/industry-issues/safety/containers>
- **Revised ISO standards for container lashing equipment and corner castings:** In support of the IMO's efforts to enhance container safety, the International Organization for Standardization (ISO), with the industry's active participation, has revised its standards regarding lashing equipment and corner castings. For more information about this issue visit: <http://www.worldshipping.org/industry-issues/safety/containers>

At any point in time, there are about 6,000 containerships active on the world's seas and waterways linking continents and communities through trade. The container shipping industry's goal remains to keep the loss of containers carried on those ships as close to zero as possible. Carriers will continue to explore and implement preventative and realistic measures to achieve that goal.