

Gigantism appeared in the sixties and raised in importance along with world trade development. Due to gigantism, each type of ship saw its physical characteristics in three dimensions evolved differently. Physical characteristics has evolved in the 3 dimensions and has been dissimilar for each type of ship. Ships maneuvering capacities were significantly impacted. Gyration, course keeping ability and the stopping distance were among the most affected elements. The effects of external elements have increased considerably due to higher windage area, higher wet area and evolution hull's shape. The combined changes in maneuverability and increased effects of natural elements are noticeable in deep sea and become an utmost concern when ships approach the coasts and especially in port areas. Due to low safety margins in ports, gigantism increases risks, potentially leading to traffic restrictions or channel blockages. Ports have to put in place measures to reduce the risk at the level of the design of accesses, structures and at the operational level by setting limits and adapting resources and training. A strict methodology for receiving large vessels must allow safe access based on international standards, operating conditions, simulation, new technologies and with the involvement of all stakeholders.