CLAIMS

1. A ship maneuvering supporting system that is used in assisting a subject ship in a port by at least one tugboat,

the ship maneuvering supporting system comprising a controller that:

calculates, with reference to a provisional route for the subject ship from a starting point to a destination point in the port, a local path and an evaluation value for each of ship maneuvering patterns in every predetermined period based on subject ship information about specifications of the subject ship and tugboat information about specifications of the at least one tugboat, wherein the ship maneuvering patterns relate to at least one of pushing the subject ship by the at least one tugboat, towing the subject ship by the at least one tugboat, or causing the at least one tugboat to travel alongside the subject ship, and the evaluation value relates to at least one of a propulsion distance of the subject ship, fuel efficiency of the at least one tugboat, a distance from an end point of the local path to the provisional route, or safety of the subject ship and the at least one tugboat; and

sets a ship maneuvering pattern whose evaluation value is smallest among the evaluation values of the respective ship maneuvering patterns as an optimal ship maneuvering pattern.

2. A ship maneuvering supporting system that is used in assisting a subject ship in a port by at least one tugboat, the subject ship including at least one thruster,

the ship maneuvering supporting system comprising a controller that:

calculates, with reference to a provisional route for the subject ship from a starting point to a destination point in the port, a local path and an evaluation value for each of ship maneuvering patterns in every predetermined period based on subject ship information about specifications of the subject ship and tugboat information about specifications of the at least one tugboat, wherein the ship maneuvering patterns relate to whether or not to use the at least one thruster and relate to at least one of pushing the subject ship by the at least one tugboat, towing the subject ship by the at least one tugboat, or causing the at least one tugboat to travel alongside the subject ship, and the evaluation value relates to at least one of a propulsion distance of the subject ship, fuel efficiency of the subject ship and the at least one tugboat, a distance from an end point of the local path to the provisional route, or safety of the subject ship and the at least one tugboat; and

sets a ship maneuvering pattern whose evaluation value is smallest among the

evaluation values of the respective ship maneuvering patterns as an optimal ship maneuvering pattern.

3. The ship maneuvering supporting system according to claim 1 or 2, wherein

the controller obtains the ship maneuvering patterns by, after calculating the evaluation value for a particular ship maneuvering pattern, creating a new ship maneuvering pattern based on the calculated evaluation value.

4. The ship maneuvering supporting system according to any one of claims 1 to 3, wherein

the controller calculates the local path and the evaluation value for each of the ship maneuvering patterns not only based on the subject ship information and the tugboat information, but also based on environmental information, the environmental information including weather information and/or oceanographic phenomenon information.

5. The ship maneuvering supporting system according to any one of claims 1 to 4, further comprising at least one display including a screen, wherein

the controller displays, on the screen, the optimal ship maneuvering pattern and/or the local path calculated for the optimal ship maneuvering pattern.

6. The ship maneuvering supporting system according to claim 5, wherein

the at least one display includes:

a subject ship display mounted in the subject ship; and

at least one tugboat display mounted in the at least one tugboat.

7. The ship maneuvering supporting system according to claim 5 or 6, wherein

the at least one display includes a terminal display included in a terminal, the terminal being independent of the subject ship and the at least one tugboat.