Summary

Indonesian as an maritime country with more than 17,000 island where as has most region is water and consist from thousand islands therefore sea transportation is the best for transportation cases compare to land and air transportation. To safe the outer island in Indonesia the Navy and sea transportation still using monohull ship, where as if compare to the trimaran ship less efficient in techno economic bases. The sophisticated ship will neede for solve that problems. In others hand the ship condition in Indonesia still using the conventional ship, whereas in Europe now days have been using the multihull ship, especially trimaran ship. The trimaran ship has advantages compare to conventional ship, for example: better stability, less resistance, better sea keeping and maneuvering, more efficient in techno and economic bases. The trimaran ship can be board in a shallow water or restricted draught harbor, especially for urban area, where as the facility is modeless not enough. This type of ship are easier to build, less resistance, faster, less draught, better stability performance, easier to good or accommodation position compare to the monohull ship, with the same displacement. With the addition of foil on aft and back of mainhull ship will decrease the draught. When the draught decreases therefore the resistance will decreases, hence the consumption of the fuel will decreases in the same operational distance. The experiments have been conducted in towing tank, and wind tunnel, and the numerical calculation have been used the Maxsurf and ANSYS.