

Analytical Hierarchical Process for Multi-Criteria Decision-Making

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Abstract : This research on technology makes a first approach to the selection of an amphibious landing ship with strategic capabilities, through the implementation of a multi-criteria model using Analytical Hierarchical Process (AHP), in which a significant group of alternatives of latest technology has been considered. The variables were grouped at different levels to match design and performance characteristics, which affect the lifecycle as well as the acquisition, maintenance and operational costs. The model yielded an overall measure of effectiveness and an overall measure of cost of each kind of ship that was compared each other inside the model and showed in a Pareto chart. The modeling was developed using the Expert Choice software, based on AHP method.

Keywords : analytic hierarchy process, multi-criteria decision-making, Pareto analysis, Colombian Marine Corps, projection operations, expert choice, amphibious landing ship

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