Quantitative Technology Forecasts of Select Maritime Technologies and Implications for Maritime Education and Training

Steven Robert Walk
Maine Maritime Academy
Castine, Maine 04420
207-326-2417
swalk@mma.edu

Introduction

This presentation provides an overview of a twelve-month research effort intending to provide quantitative technology forecasts, over 5, 10,20 or more years, of the diffusion and performance improvement of up to four select maritime technologies and to consider the implications of the identified technological changes in maritime education and training. This presentation provides a review of the intent and expected results of the research as outlined in the project proposal!, provides a brief report of initial research results, and announces formal seminars and informal discussions at the 4th General Assembly in Alexandria as part of the development methodology of the quantitative technology forecasts called for in this project.

Report on Activity to Date

Initial research has focused on establishing background intelligence in quantitative technology forecasting pertinent to the development of forecasts for the maritime industry and maritime education, preliminary to the detailed development of specific quantitative technology forecasts called for in this project. Making use of resources at Maine Maritime Academy, University of Southern Maine, University of Maine, the Massachusetts Institute of Technology, and various publications from several private consultancies in technological forecasting and market trending, substantial research has been conducted in the following areas:

1. Advances in theory and techniques of quantitative technology forecasting applicable to research in this project;
2. Research of the prior art of technological forecasting in maritime industries and maritime education;
3. Recent or current published activity in technology forecasting and trending in maritime industries and maritime education.

This preliminary research has resulted in a broad collection of information and data applicable to the development and analysis of quantitative technology forecasts for planning in maritime education called for in this project. What's more, the research has identified resources of prior and ongoing studies of the future of maritime industry and technology, enhancing the ability to:

1. Compare and contrast results of quantitative technology forecasting versus other predictive methods;
2. Validate, corroborate, and establish confidence in the quantitative technology forecasts resulting from this project;
3. Identify authors, institutions, organizations, and publications where time-stamped data of technological change and adoption rates applicable to maritime industry and maritime education.

Planned Activity at IAMU 4th General Assembly

Plans for activities at the 4th General Assembly in Alexandria include scheduling and leading formal seminars and informal discussions of technological change and adoption in maritime industry and education. IAMU leaders and member representatives will be invited to attend discussions that stress conceptual thinking appropriate to quantitative technology forecasting methodology to consider 1) the performance criteria that have led to the adoption, substitution, and overall evolution of certain maritime technologies, and 2) the fundamental human utility driving the technological changes.