



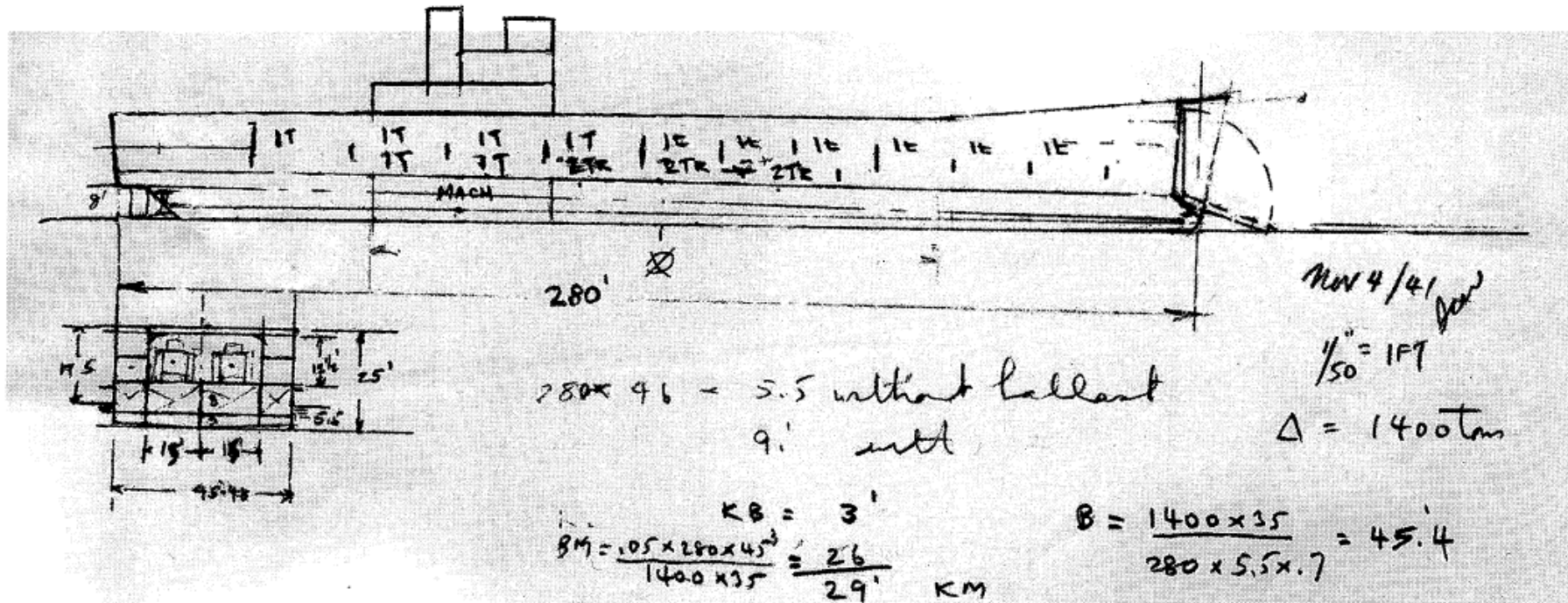
NAVAL SEA SYSTEMS COMMAND

Physics-Based Modeling in Design & Development

15 Nov 2011

Rear Admiral Tom Eccles (SEA 05)



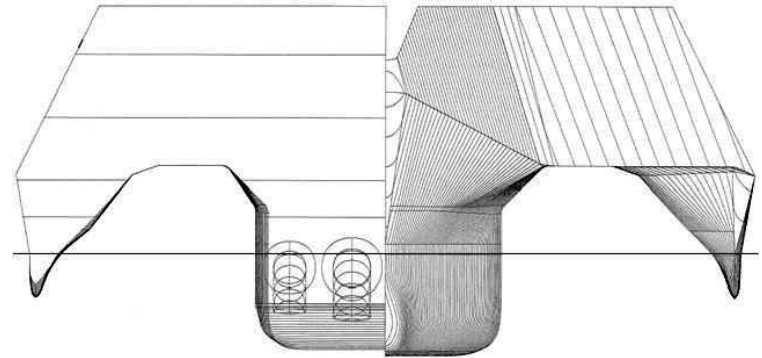
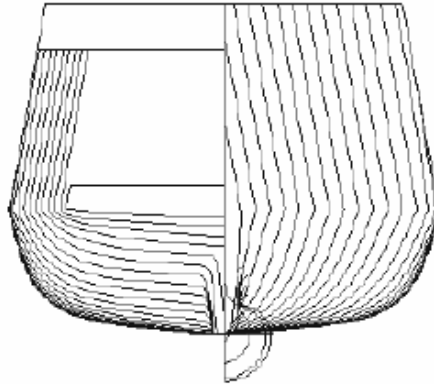
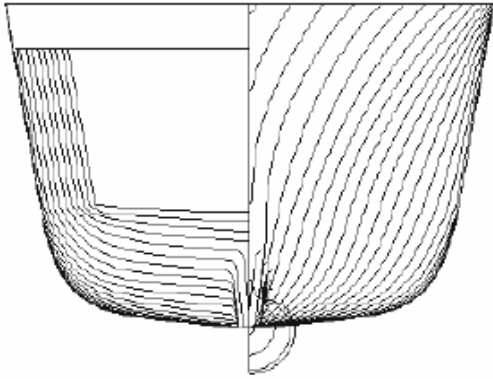


Original LST A



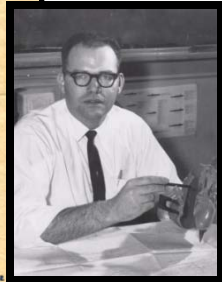
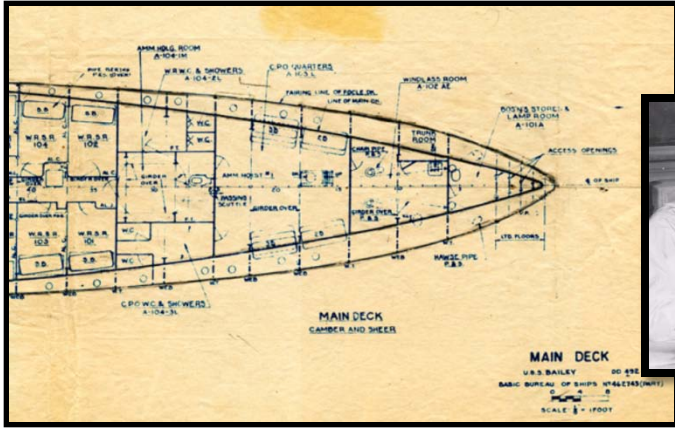
Original LST Napkin Sketch
 J.C. Neidermair
 Director of Preliminary Design
 Bureau of Ships
 1939 - 1959

Ship Hull Forms Require Complex Hydrodynamic Analysis



Pencil and paper

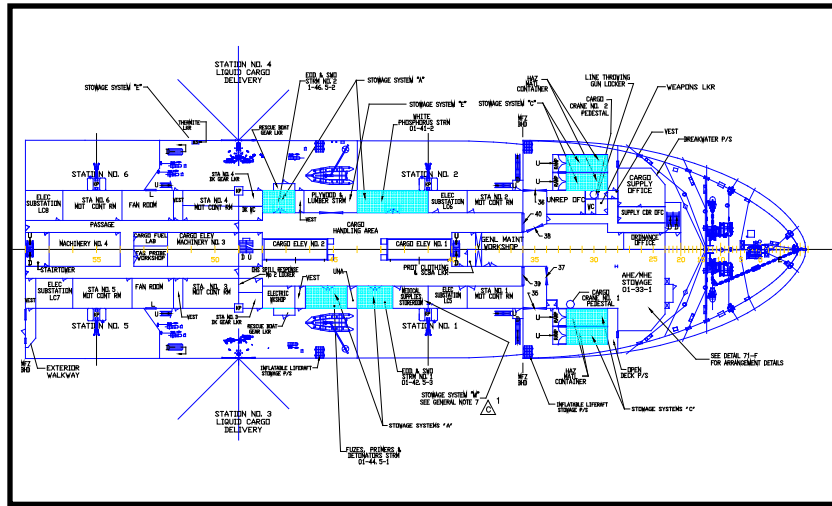
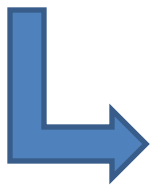
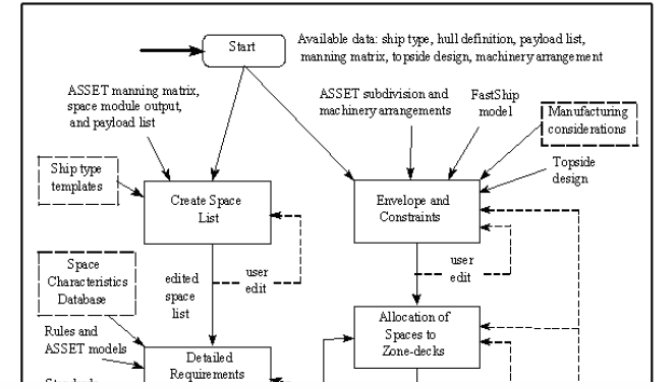
1980s and before



Evolution Of Ship Arrangements

Intelligent Ship Arrangements

2018 and beyond



Computer Aided Design

1990s to ~ 2017

