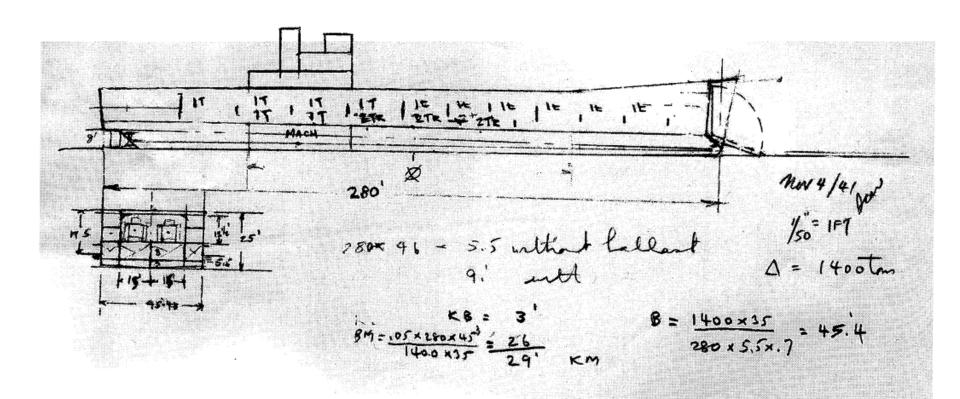


NAVAL SEA SYSTEMS COMMAND

Physics-Based Modeling in Design & Development

15 Nov 2011

Rear Admiral Tom Eccles (SEA 05)

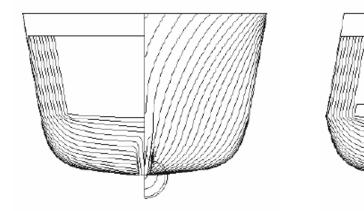


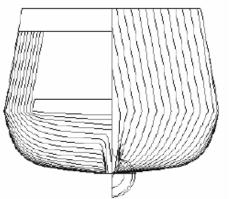


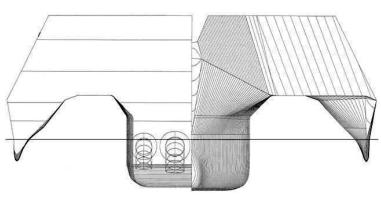
Original 157 A

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

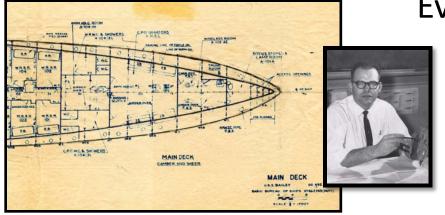
1980s and before

Evolution Of Ship Arrangements

ASSET manning matrix,

space module output,

and payload list



Intelligent Ship Arrangements 2018 and beyond

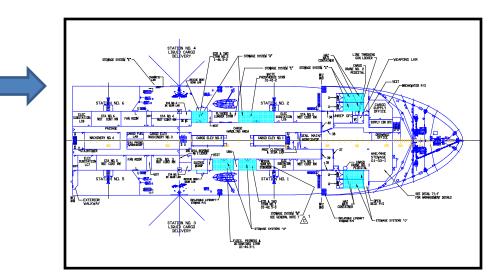
Available data: ship type, hull definition, payload list, manning matrix, to pside design, machinery arrangement

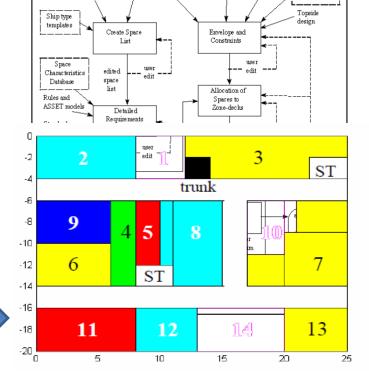
Manufacturing

considerations

ASSET subdivision and FastShip

machinery arrangements





Computer Aided Design

1990s to ~ 2017

