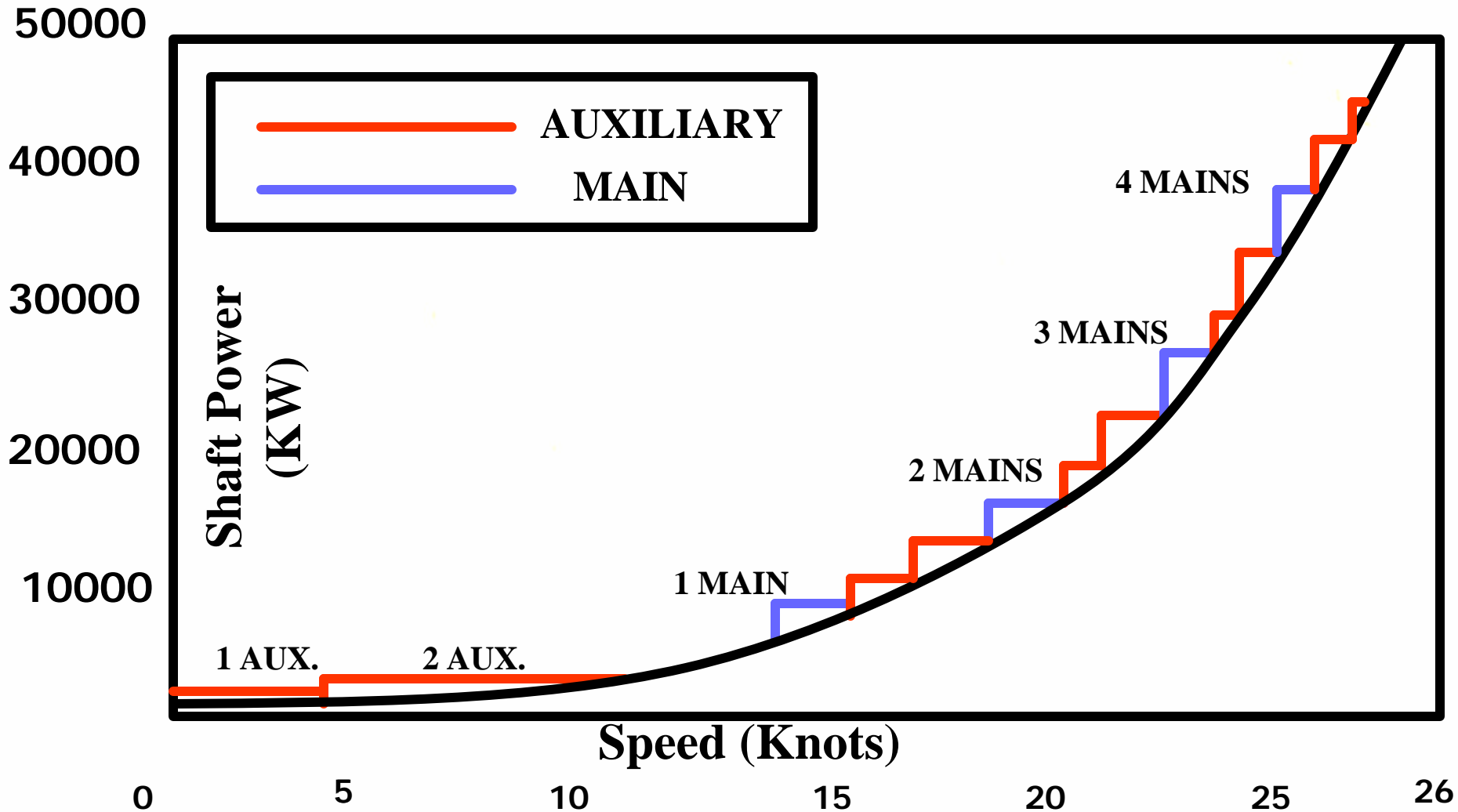




Speed Power Curve

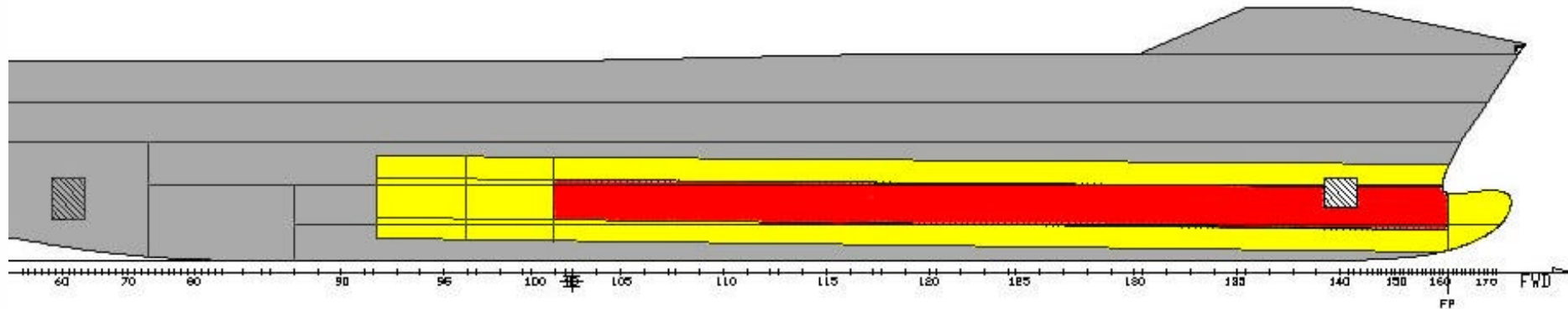
Main and Auxiliary Generator Powering Steps





Ice Strengthening

The new ships were designed to ice class I-C to mitigate potential hull damage.

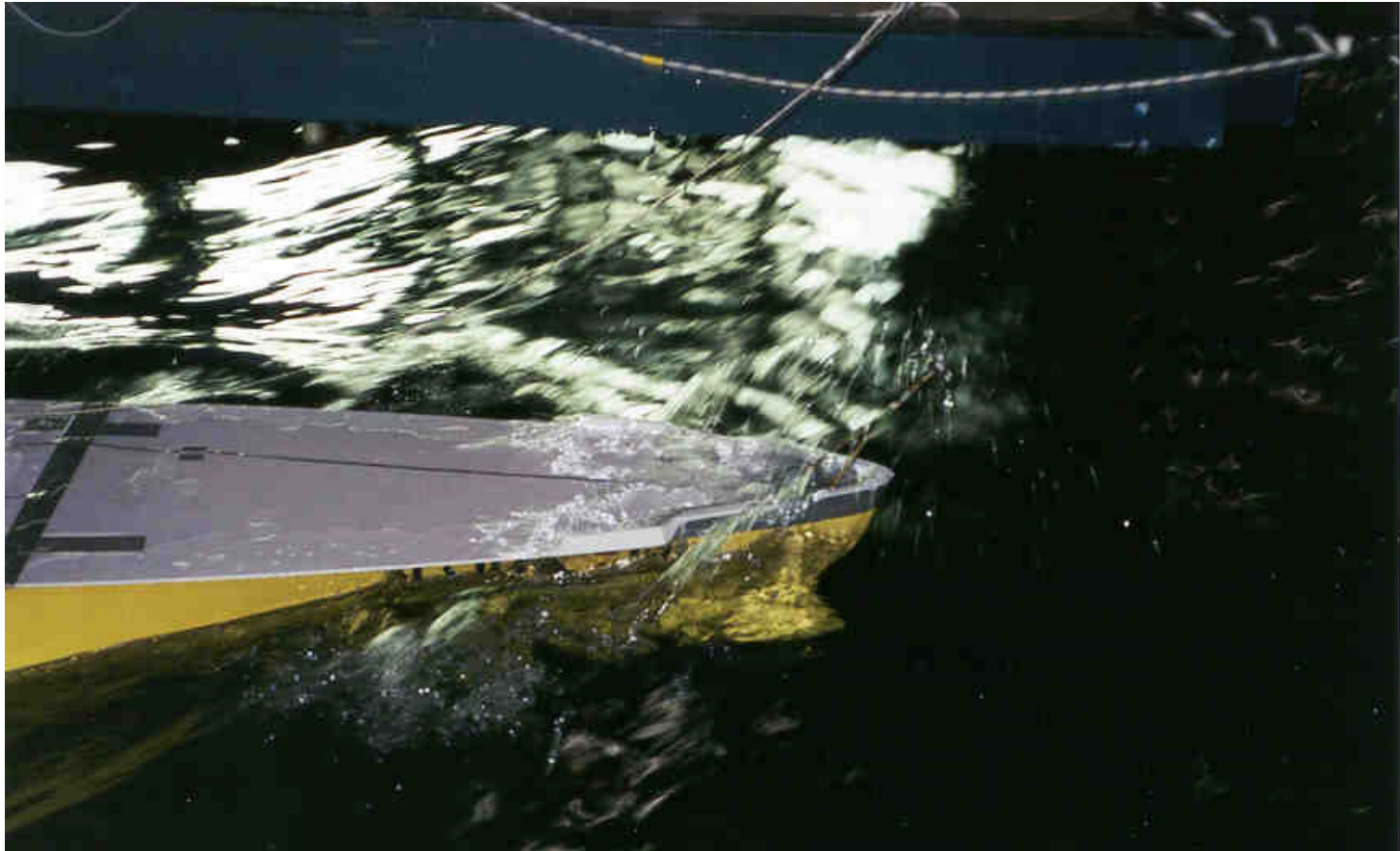


EXTENT OF ICE STRENGTHENING





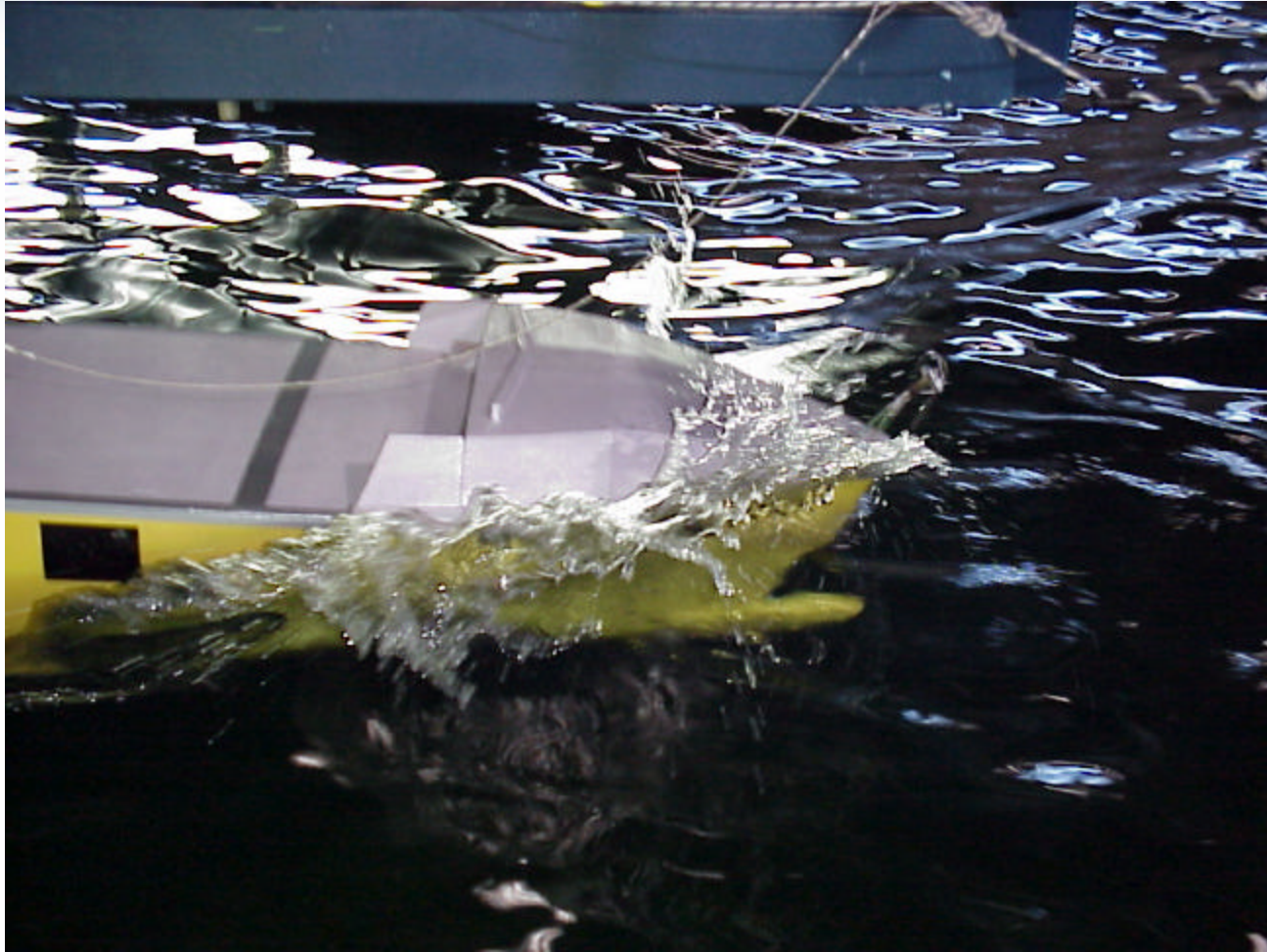
Seakeeping Tests



Ponce Vessel Seakeeping



Seakeeping Tests



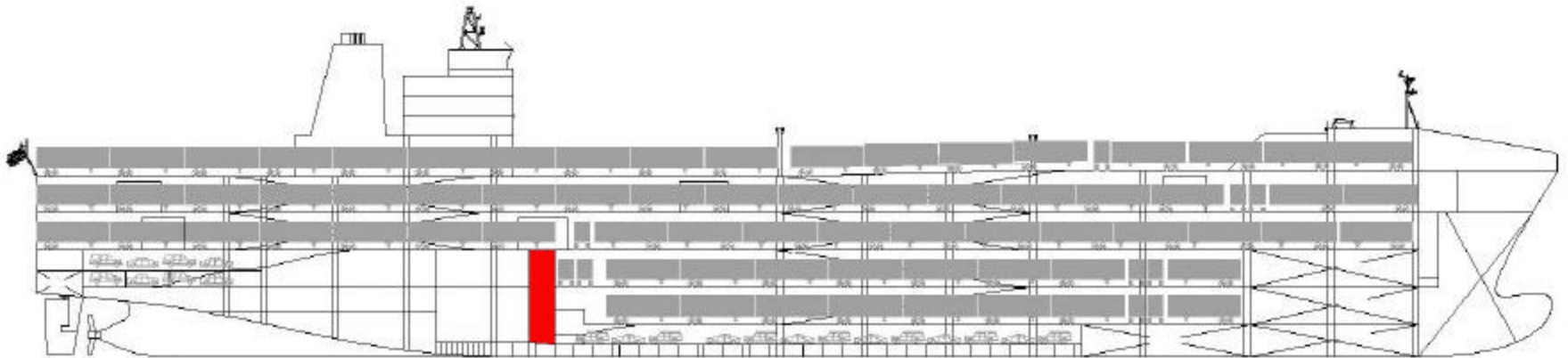
Orca Vessel Seakeeping



M. V. North Star Sea Trial August 2003



F.O. Pollution from Grounding or Collision



Location of protected fuel oil tank for
Alaska Service



Fuel Oil Tankage and Overflow Configuration

