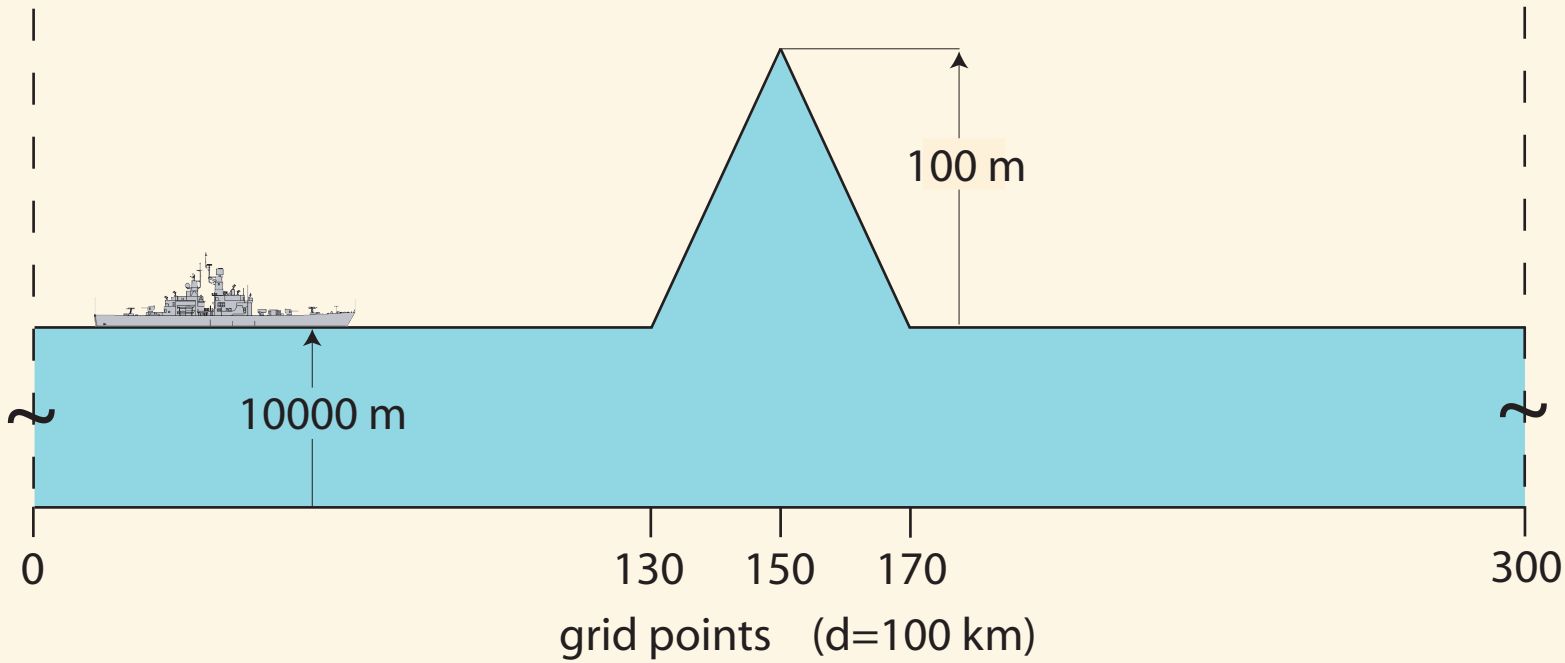MODEL DOMAIN AND INITIAL CONDITION