

# Numerical Estimation of Ice Load Accumulated on Disappeared Fishing Vessel (Destination)

## 1. Introduction

The ice accumulated on the fishing vessel disappeared on Feb. 2017 is calculated numerically using data provided by NTSB. The numerical scheme uses the current knowledge of marine icing published in relevant journals and a numerical code which is recently developed by the authors. The results are strongly dependent on the input data. Despite having a lot of information related to this case, there are some unknown parameters cause uncertainties.

## 2. Conditions

The simulation is conducted considering two individual conditions, full load and low load. Figs. 1 and 2 show the full and low load conditions.



Fig. 1. A picture of the full load condition



Fig. 2. A picture of the low load condition

### **3. Results**

The mass of ice accumulated on the fishing vessel from 23:15 AKST on Feb. 9, 2017 to 06:15 AKST on Feb. 11 is shown in Fig. 3. Results vary between Max and Min values for full load and low load conditions. Details are attached (Excel file).

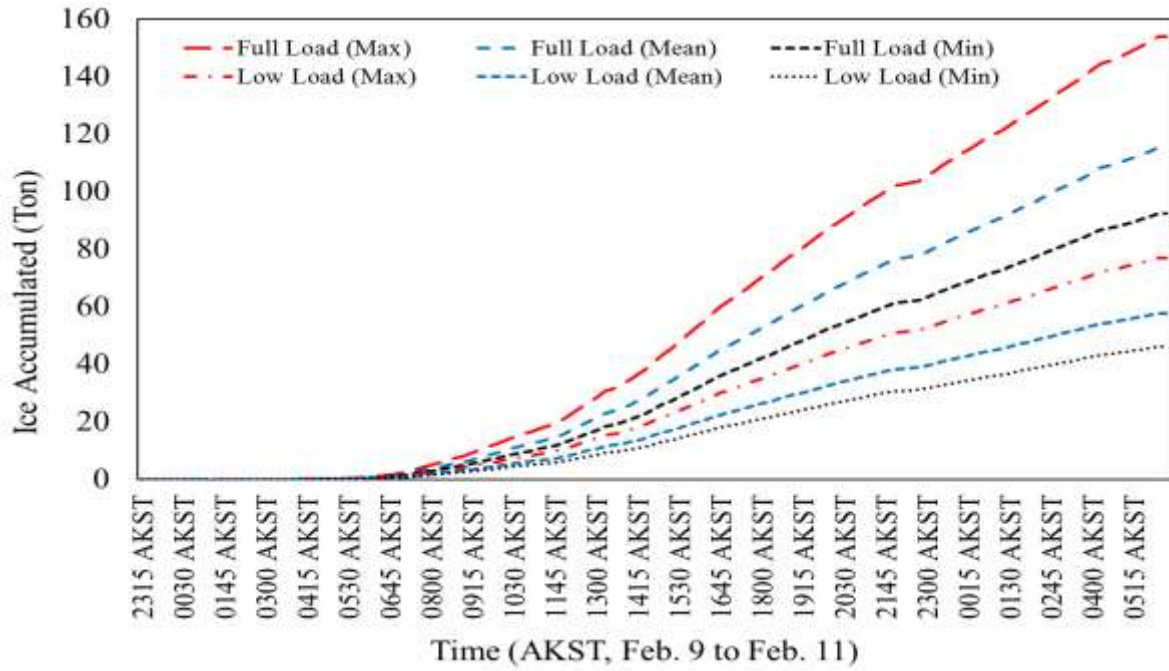


Fig. 3. Numerical solution of the mass of ice accumulated on the fishing vessel (Destination)