

Ice Load Monitoring System Tool for Real-time Forecasting in Ice Navigation



Aker Arctic Technology Inc has developed an Ice load Monitoring System (ARC ILMS) to assist the navigator to monitor ice loads against vessel during navigation.

ILMS utilizes strain sensor data together with data processing and storage to show real time ice load situation and uses algorithms to forecast ice loads.

Ice load forecast is essential tool for navigator's decision-making during ice navigation.

Forecast calculation algorithm is based on statistical analysis of ice loads.

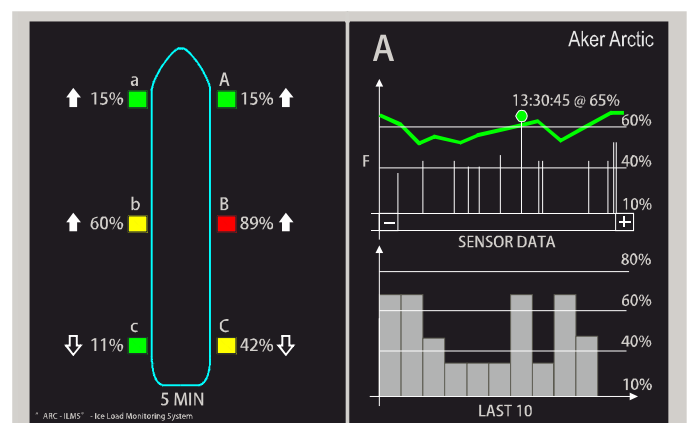
ARC ILMS shows measured ice load and processes it to display the following parameters to each sensor:

- n Current % value of max load for hull
- n Forecast trend increasing / decreasing
- n Raw data with forecasted trend
- n Last 10 peak values during past hour
- n Permanent structural form changes
- n Sensor condition monitoring

ARC-ILMS Ice Load Monitoring System package

- n Monitoring software platform with sophisticated forecast algorithm
- n Season Analysis of measured data
- n Sensor location Analysis
- n Sensor and related hardware delivery and installation by AAT sensor partners

Location of an ILMS sensors are one of the key parts of ILMS. Aker Arctic provides analysis of locations for sensor installation. We offer seasonal analysis of measured data for ship operator.



ARC-ILMS Ice Load Monitoring System benefits

- n Season analysis of measured data
- n Allows use of various sensor technologies
- n Forecast algorithm
- n On-line monitoring and warning (Depending on vessels communication facilities)