

C-CORE

INTELLIGENCE

CURIOSITY

PRACTICALITY



Ice Engineering Expertise

Ice Loading: Iceberg Load Software (ILS)

C-CORE's *Iceberg Load Software (ILS)* tool estimates iceberg design loads on fixed or floating structures. It assists users in the selection of design loads for concept evaluation and for feasibility and scoping studies.

Compliant with ISO 19906 standards, it is a flexible tool, accepting inputs of different structure types and designs, ice and environmental conditions, seasonality and interaction models.

It is also easy to use, with a simple graphical interface that provides Ability to define bottom founded and floating structures;

- * Ability to input data for various regions of interest;
- * Access to various ILS help documents; and
- * Visualization and export of simulation results.

Below: *Iceberg-vessel impact trials*



The screenshot shows the 'Structure Options' dialog box. It has two radio buttons: 'Fixed Structure' (selected) and 'Floating Structure'. Below these are 'Ok' and 'Cancel' buttons. A 'Num Steps for Slopes' field is set to 20. A graph on the right shows a profile with points A, B, C, D, and E. Below the graph are two tables for structure dimensions.

	Radius (m)	Depth (m)
A	5.6	0
B	8	40
C	17	40
D	17	100
E	0	100

	Radius (m)	Depth (m)
F	20	250
G	18	260
H	15	270
I	12	280
J	0	290

Below the tables is the 'Incoming Iceberg' section with fields for 'Angle From Bow' (0, 0, 0, 0, 0) and '% of Time' (100, 0, 0, 0, 0). At the bottom, there are checkboxes for 'Apply detection, management and disconnect capability' (checked) and 'Structure has disconnect capability' (checked). Below these are fields for 'Operation Success (%)' (100), 'Emergency disconnect time (hr)' (4), and 'Max significant wave height (m)' (12). 'Ok' and 'Cancel' buttons are at the bottom right.

Ice Engineering Expertise

Ice Loading: Sea Ice Loads Software (SILS)

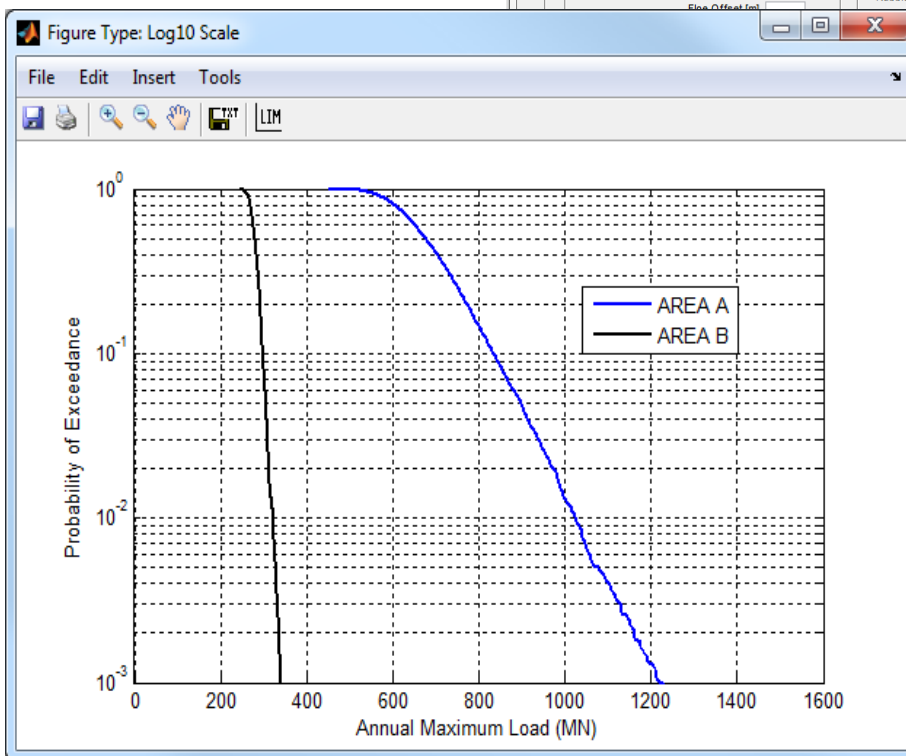
C-CORE's **Sea Ice Loads Software** (SILS) tool estimates extreme first-year and multi-year sea ice loads on fixed and floating structures, in both probabilistic and deterministic modes.

It assists users in the selection of design loads for concept evaluation and for feasibility and scoping studies.

Compliant with ISO 19906 standards, it is a flexible tool, accepting inputs of differing structure types and designs, ice and environmental conditions, seasonality and interaction models.

SILS' simple graphical interface provides:

- ✳ Ability to create new, or modify existing, scenarios;
- ✳ Visualization of input data through tables & figures;
- ✳ Access to various SILS help documents; and
- ✳ Visualization, analysis and export of simulation results.



Below: Ice pile-up on the Molikpaq
(Image courtesy of NRC)



c-core

Captain Robert A. Bartlett Building
1 Morrissey Road, St. John's, NL, Canada A1B 3X5
709.864.8354 • info@c-core.ca

4043 Carling Avenue, Suite 202
Ottawa ON, Canada K2K 2A4
613.592.7700 • info@c-core.ca

c-core.ca