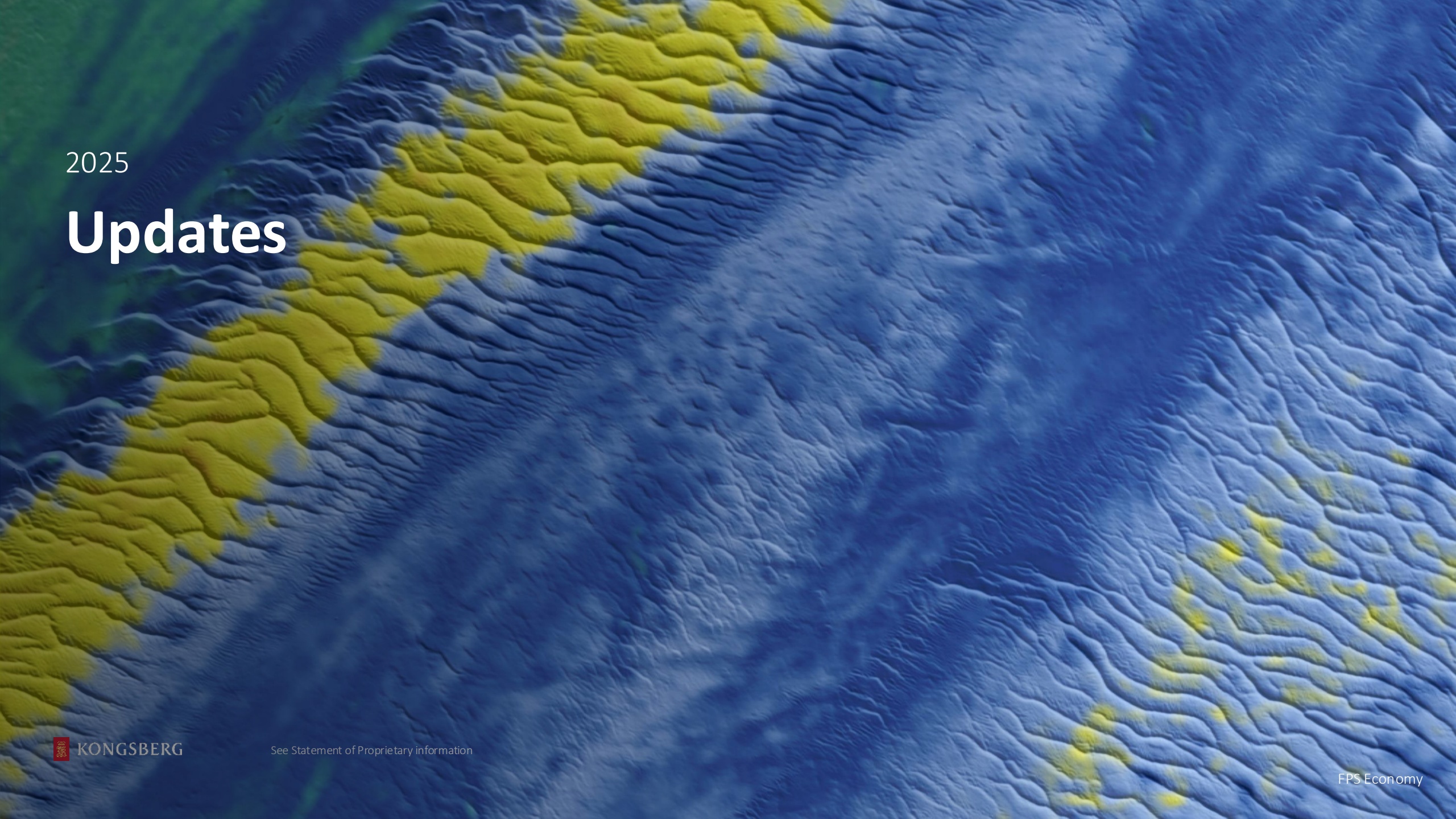
Kongsberg Discovery Open Discussion

Colleen Peters, Product Manager, Mapping Software

RVTEC 2025

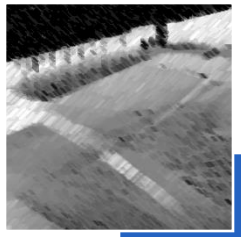
2025

Updates



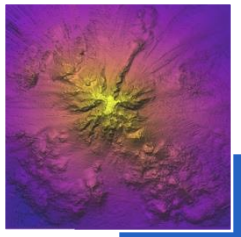
KONGSBERG

Product Responsibilities



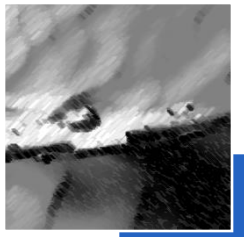
R&D

- Software that lives on hardware to operate the hardware
- KMALL format
- KD Binary format



Mapping Software

- Sensor Control software with a UI
- Utility software with a UI
- 3rd party integrations
- Services



Blue Insight

- Anything that happens with the data after it is logged and/or transferred

Kongsberg Discovery Resources

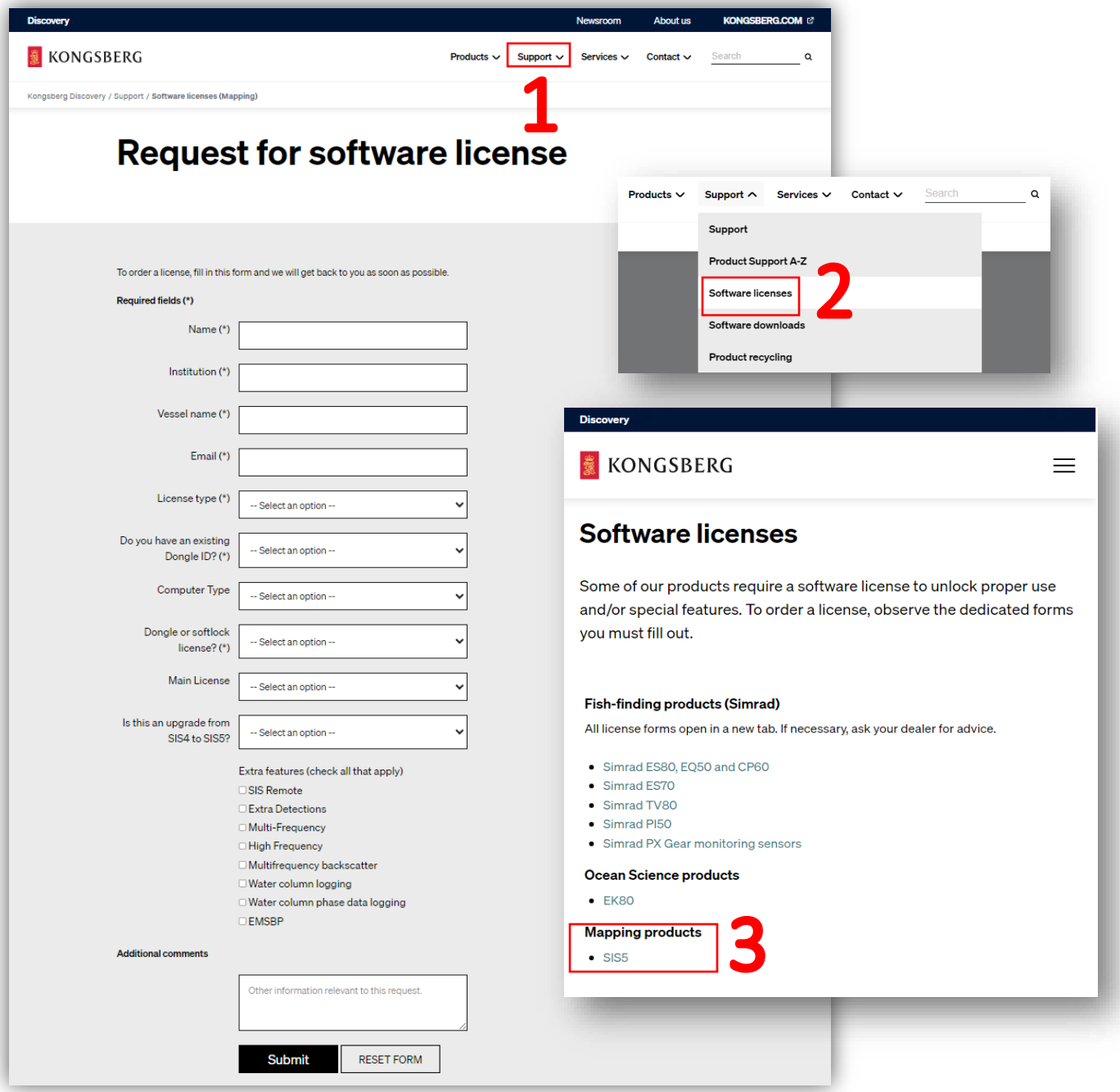
- Request for software license - Kongsberg Discovery
- Software downloads - Kongsberg Discovery
- Product Documents - Kongsberg Discovery
- Technical Notes - EM Multibeam echo sounders
- Hydrographic support - Kongsberg Discovery
- Sign up for mapping news updates - Kongsberg Discovery

Help and Support

License Request Form

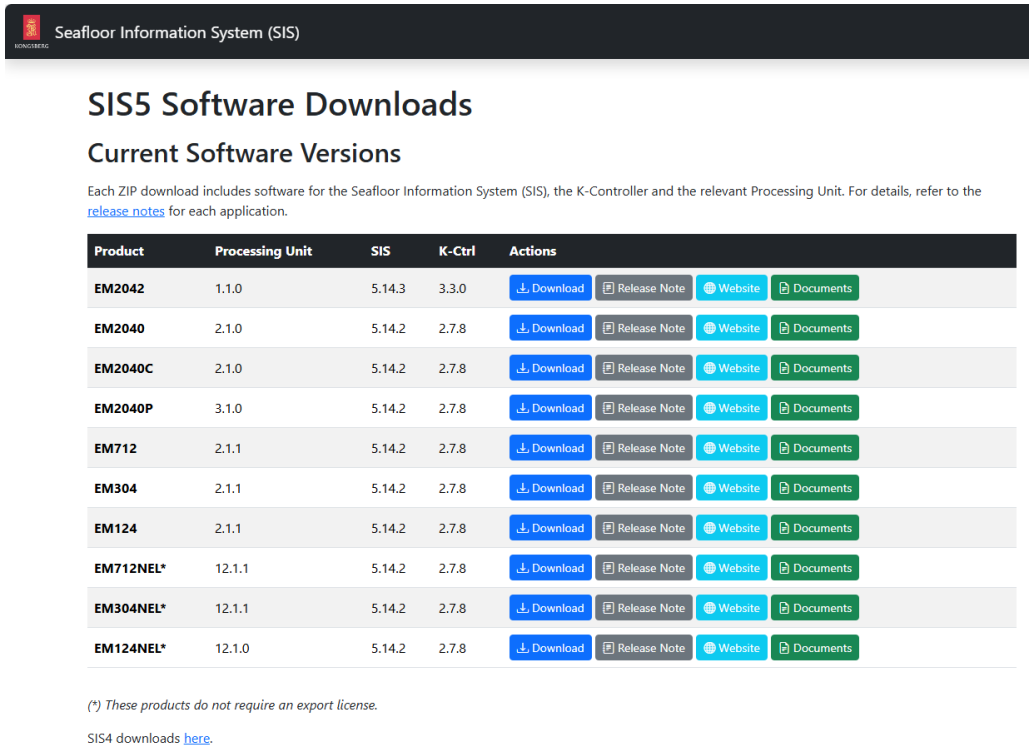
[Request for software license - Kongsberg Discovery]

- To get upgrades, additional features and demos.
  - Demo – needs approval from someone at KD
  - Permanent—need a purchase order
- Sends an email to Customer Support with **all** the information they need to generate the licenses more efficiently.

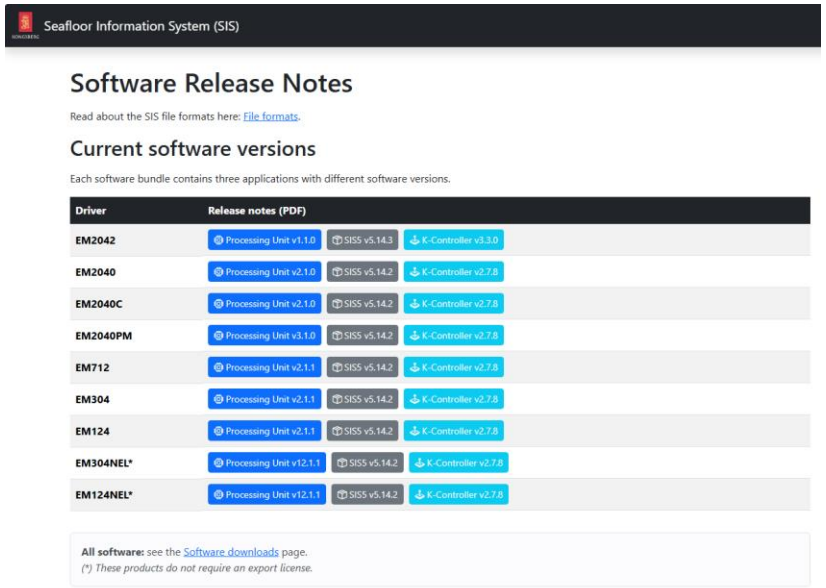


Kongsberg Discovery (documentation) Website

Software Downloads page



- No login to download software, **CURRENT** version of SIS5 and last version of SIS4. https://www.kongsbergdiscovery.net/sis/sw.htm.
- Release notes are available for the current version https://www.kongsbergdiscovery.net/sis/swrn.htm
- Email support.umap@kd.kongsberg.com for other versions.

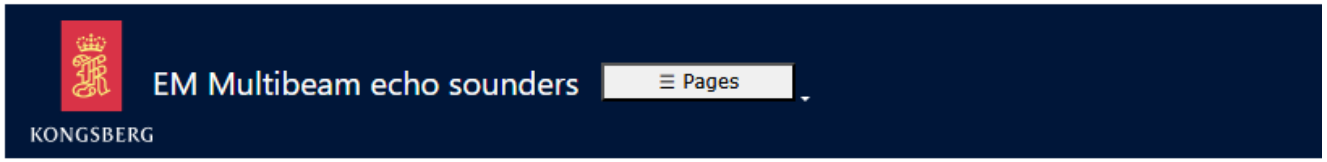


KONGSBERG

New document

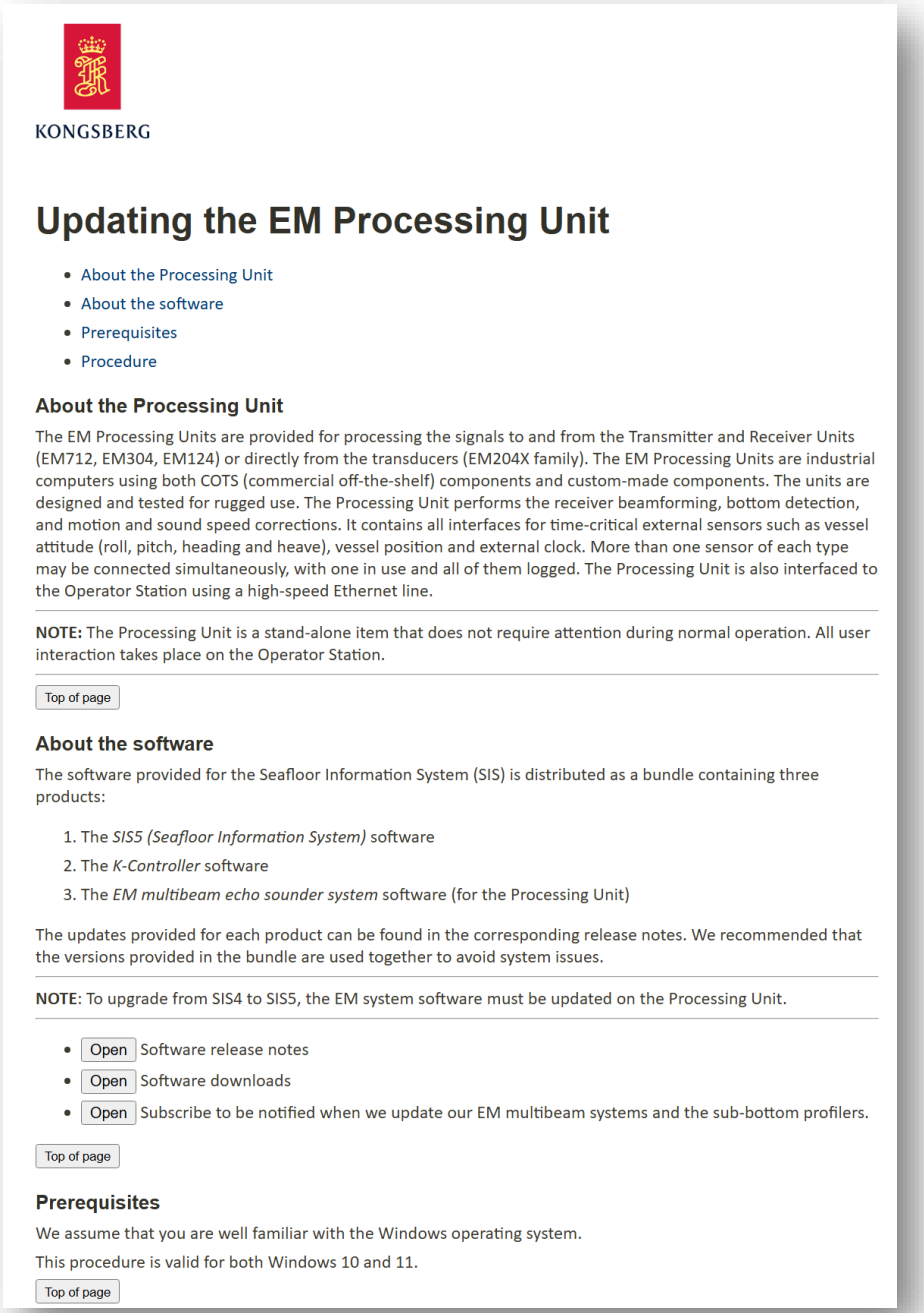
PU Upgrade Instructions

- Technical Notes: https://www.kongsbergdiscovery.net/em/technotes.htm
  - PU upgrade instructions https://kongsbergdiscovery.net/em/0088129/



Technical notes

Document	Language	Version	Download/Open
Settings and "best practices" for SIS5	English	Rev.A	Open
Updating the EM Processing Unit	English	Rev.A	Open



KONGSBERG

Updating the EM Processing Unit

About the Processing Unit

The EM Processing Units are provided for processing the signals to and from the Transmitter and Receiver Units (EM712, EM304, EM124) or directly from the transducers (EM204X family). The EM Processing Units are industrial computers using both COTS (commercial off-the-shelf) components and custom-made components. The units are designed and tested for rugged use. The Processing Unit performs the receiver beamforming, bottom detection, and motion and sound speed corrections. It contains all interfaces for time-critical external sensors such as vessel attitude (roll, pitch, heading and heave), vessel position and external clock. More than one sensor of each type may be connected simultaneously, with one in use and all of them logged. The Processing Unit is also interfaced to the Operator Station using a high-speed Ethernet line.

NOTE: The Processing Unit is a stand-alone item that does not require attention during normal operation. All user interaction takes place on the Operator Station.

Top of page

About the software

The software provided for the Seafloor Information System (SIS) is distributed as a bundle containing three products:

1. The *SIS5 (Seafloor Information System)* software
2. The *K-Controller* software
3. The *EM multibeam echo sounder system* software (for the Processing Unit)

The updates provided for each product can be found in the corresponding release notes. We recommended that the versions provided in the bundle are used together to avoid system issues.

NOTE: To upgrade from SIS4 to SIS5, the EM system software must be updated on the Processing Unit.

- Open Software release notes
- Open Software downloads
- Open Subscribe to be notified when we update our EM multibeam systems and the sub-bottom profilers.

Top of page

Prerequisites

We assume that you are well familiar with the Windows operating system.

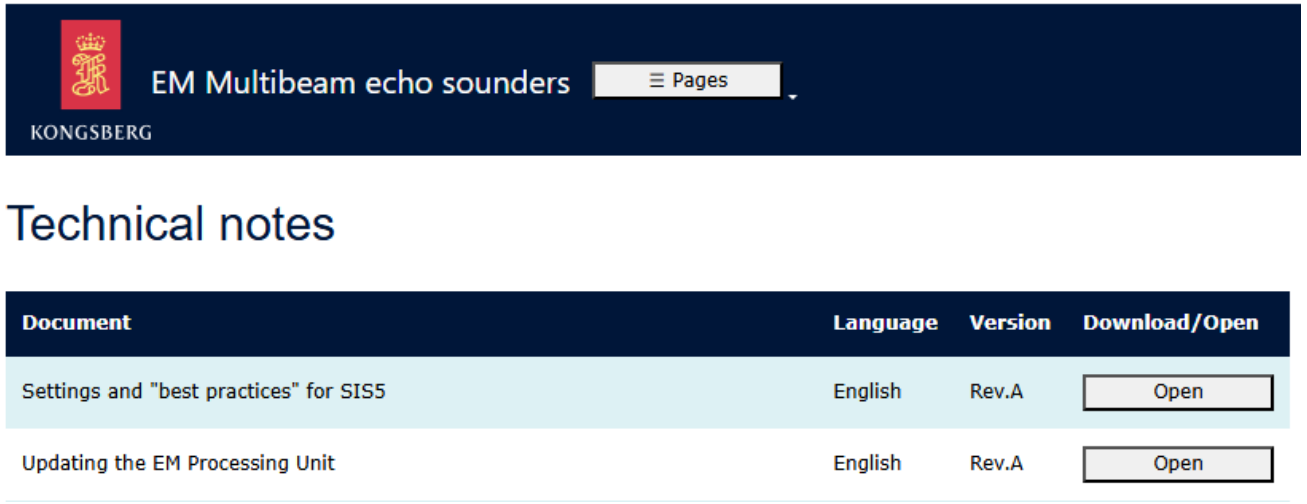
This procedure is valid for both Windows 10 and 11.

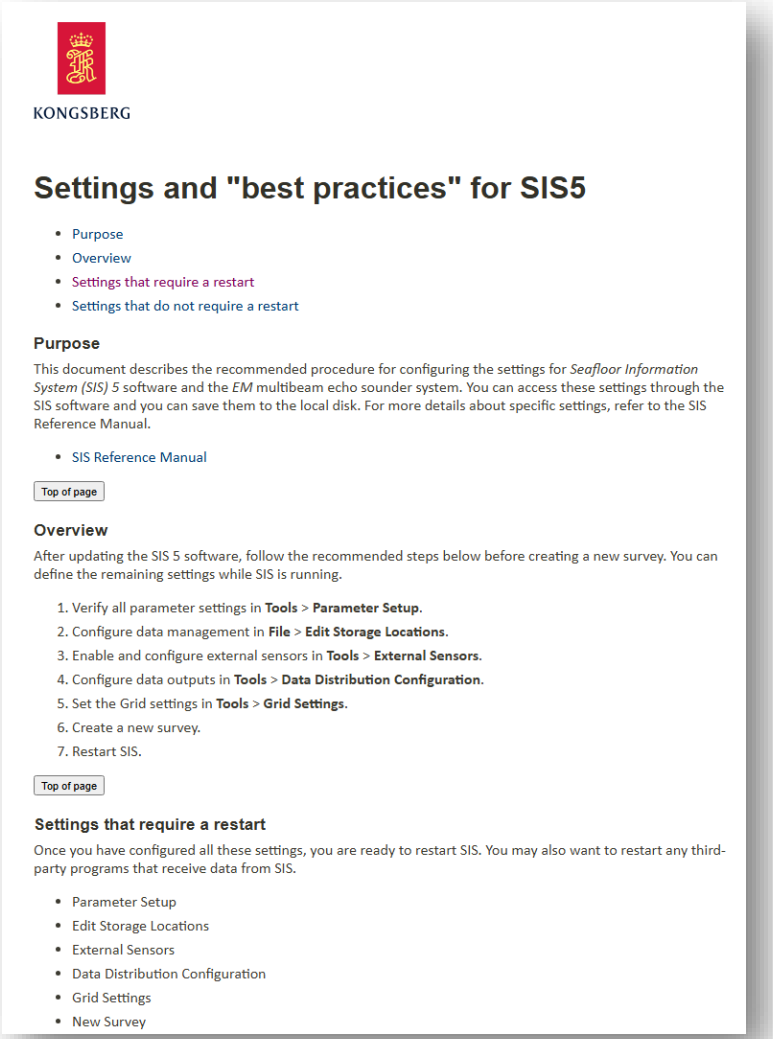
Top of page

New document

Settings and “Best Practices” for SIS5

- Technical Notes: https://www.kongsbergdiscovery.net/em/technotes.htm
- Settings and “best practices” for SIS5: https://kongsbergdiscovery.net/em/0139430/
- What settings require a restart vs. what settings do *not* require a restart
  - In-depth review on Friday!




KONGSBERG

Settings and "best practices" for SIS5

- Purpose
- Overview
- Settings that require a restart
- Settings that do not require a restart

Purpose

This document describes the recommended procedure for configuring the settings for *Seafloor Information System (SIS) 5* software and the *EM* multibeam echo sounder system. You can access these settings through the SIS software and you can save them to the local disk. For more details about specific settings, refer to the SIS Reference Manual.

- SIS Reference Manual

Top of page

Overview

After updating the SIS 5 software, follow the recommended steps below before creating a new survey. You can define the remaining settings while SIS is running.

1. Verify all parameter settings in **Tools** > **Parameter Setup**.
2. Configure data management in **File** > **Edit Storage Locations**.
3. Enable and configure external sensors in **Tools** > **External Sensors**.
4. Configure data outputs in **Tools** > **Data Distribution Configuration**.
5. Set the Grid settings in **Tools** > **Grid Settings**.
6. Create a new survey.
7. Restart SIS.

Top of page

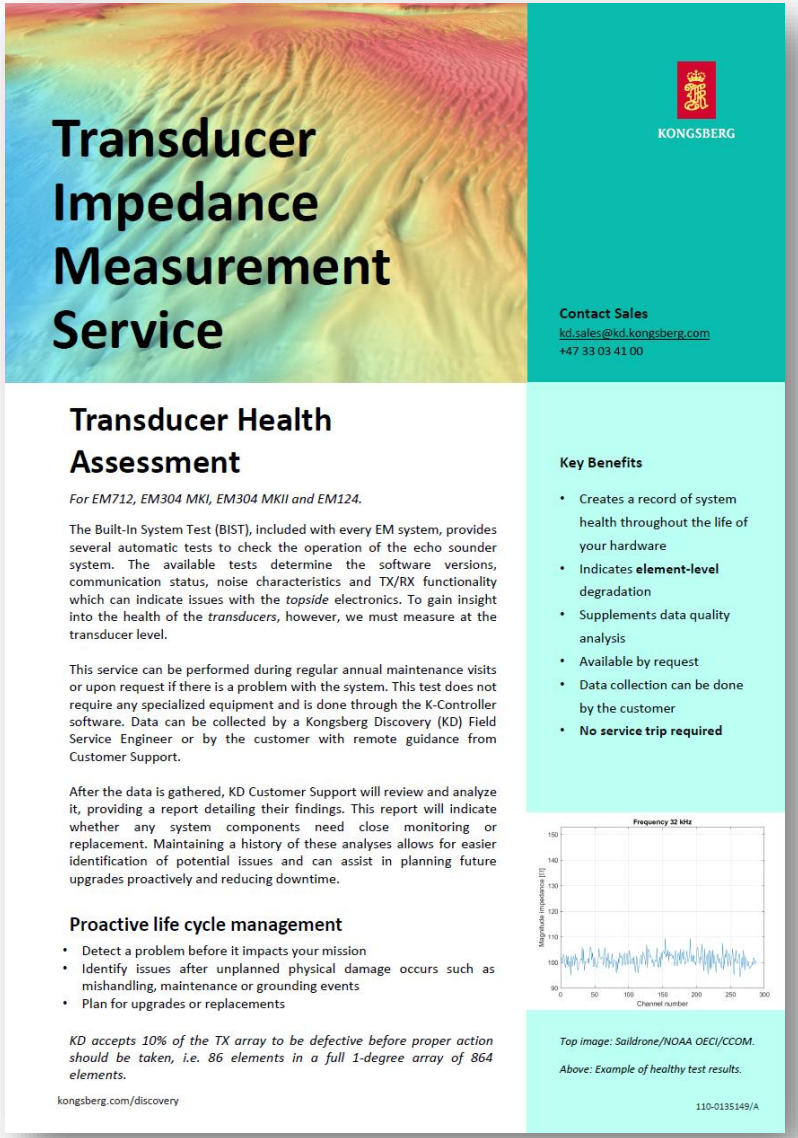
Settings that require a restart

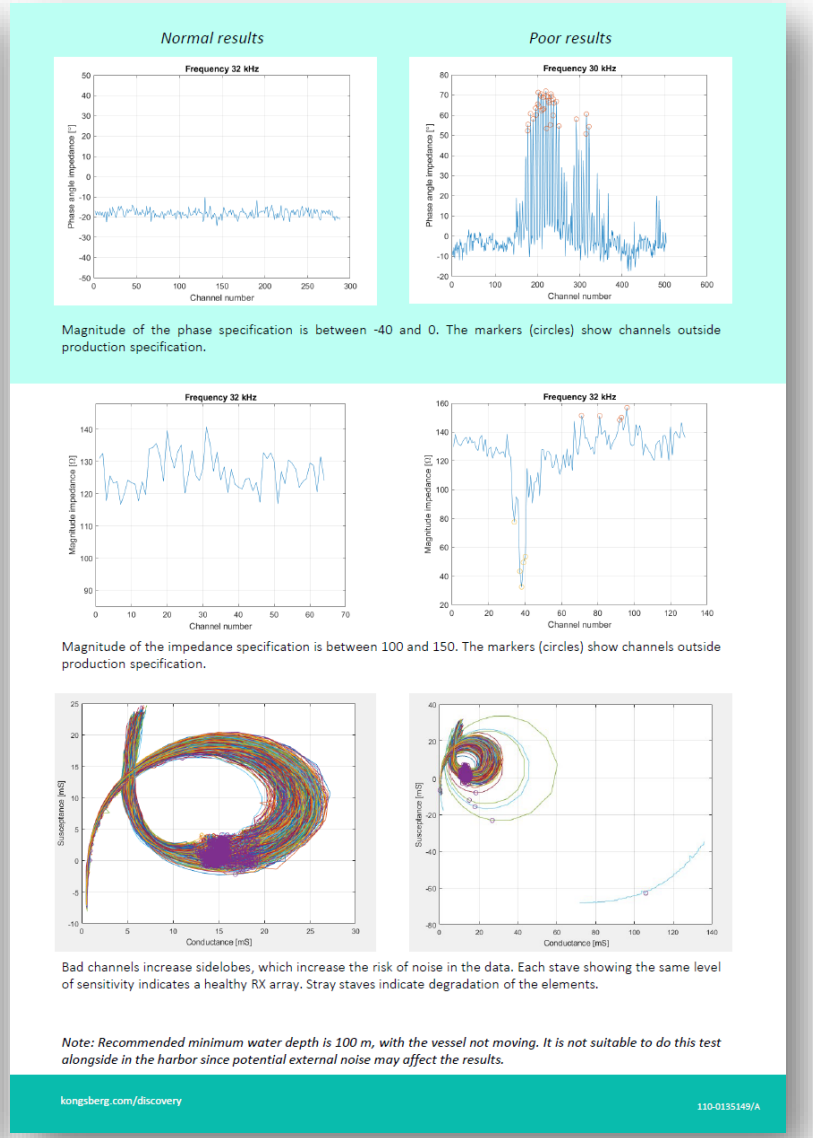
Once you have configured all these settings, you are ready to restart SIS. You may also want to restart any third-party programs that receive data from SIS.

- Parameter Setup
- Edit Storage Locations
- External Sensors
- Data Distribution Configuration
- Grid Settings
- New Survey

Improvements

[Transducer Impedance Measurement Service - Kongsberg Discovery]





Export Restrictions moving from transmitter card to TXU for EM124, EM304 and EM712

Soon easier to ship replacement transmitter cards

How we manage export restrictions has evolved over time
- A tricky balance between compliance and practicality

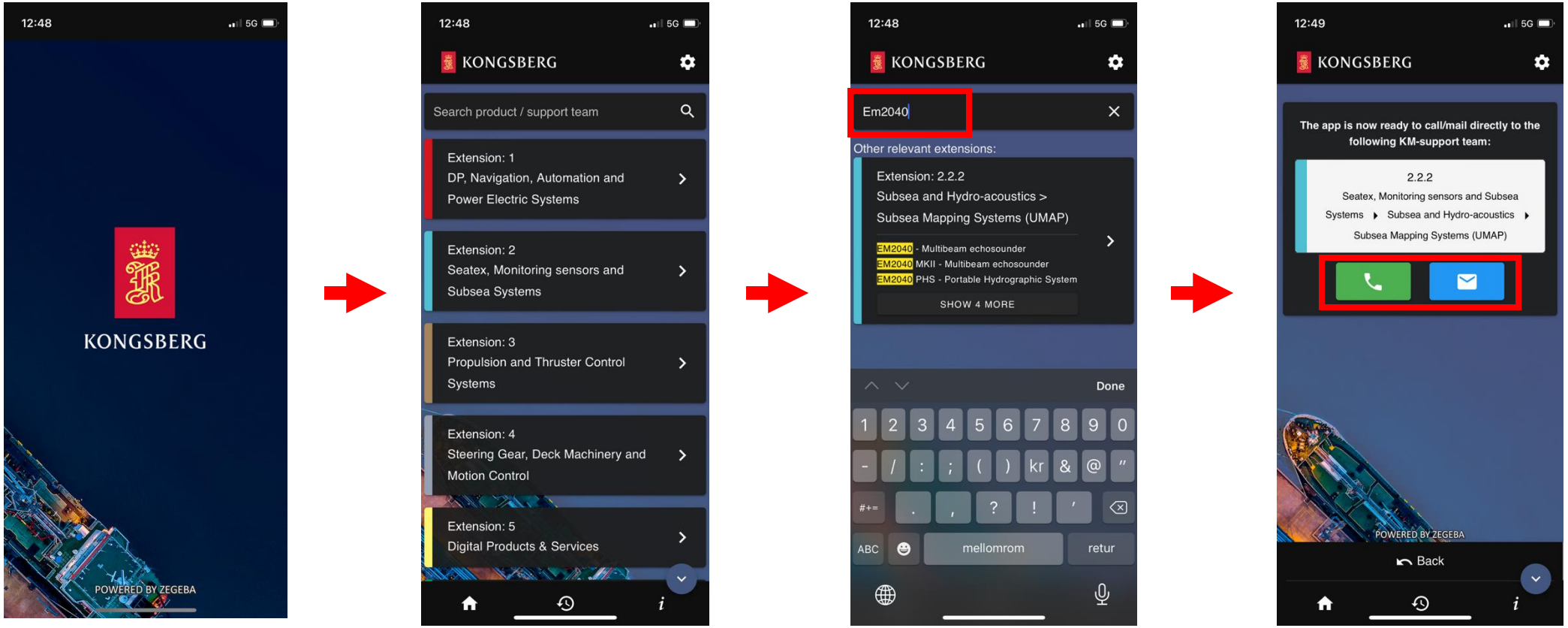
The current system has been a pain for customers needing rapid service
- Special paperwork needed to supply individual transmitter cards

Export restrictions will be moved to the TXU
- Control will be maintained, updated guidance will be provided

Easier and quicker to provide customer support
- Faster and license-free delivery of transmitter cards

Effective January 1st, 2026
- Earlier, if possible, we will let you know

KM-Support App

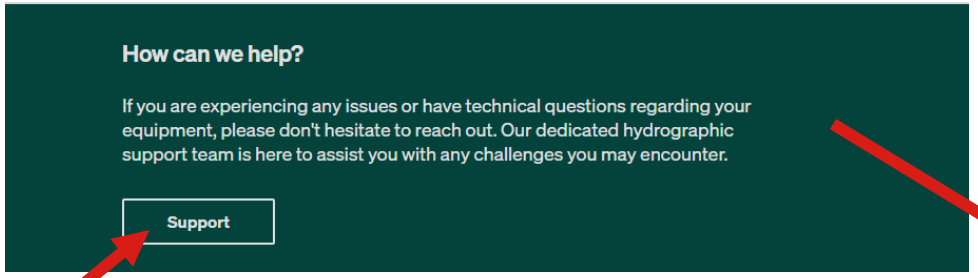


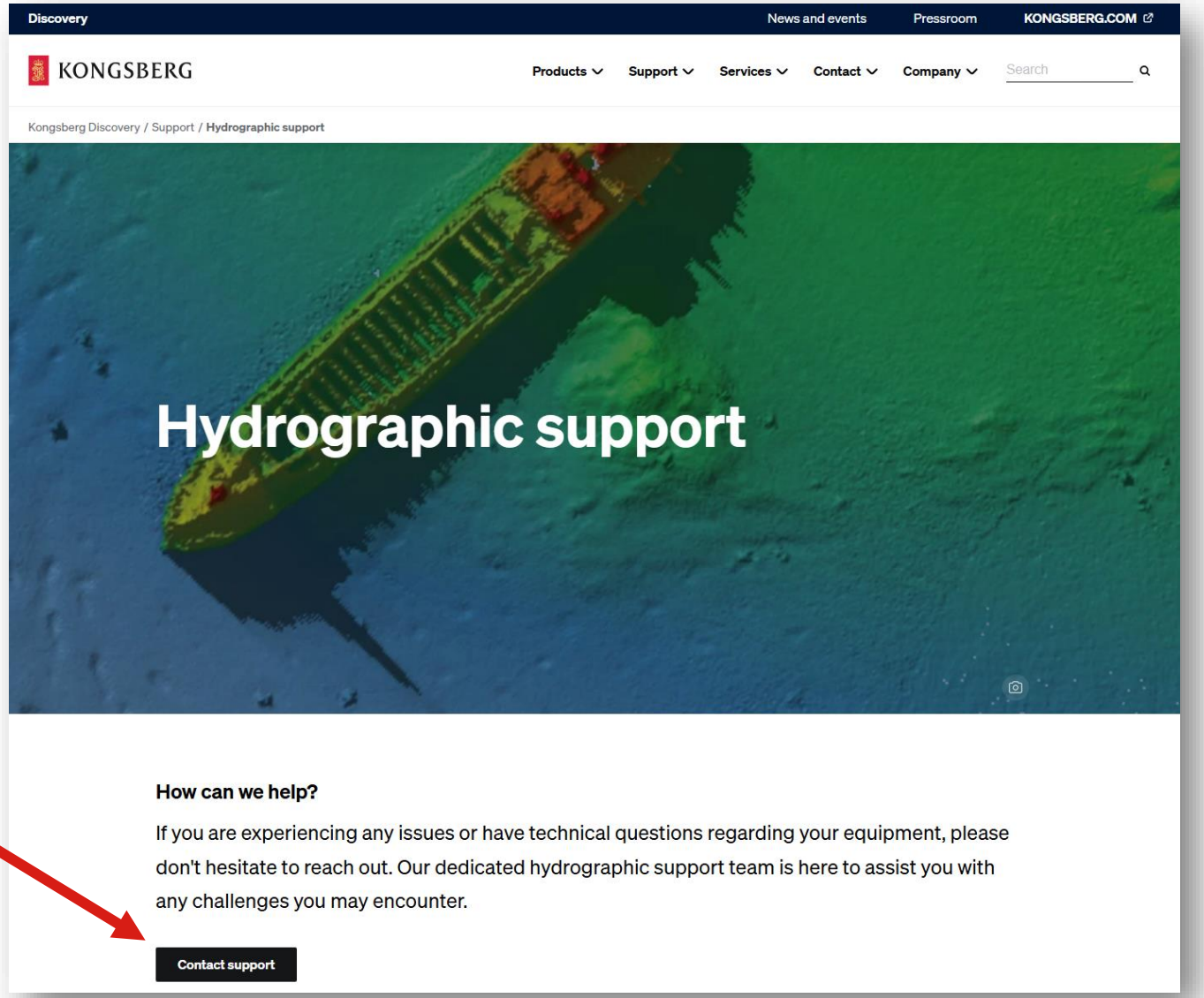
Help and Support

Customer Support Form

[Contact hydrographic support - Kongsberg Discovery]

- Use this form directly or as a template for your email to customer support.
- This form is for mapping products.





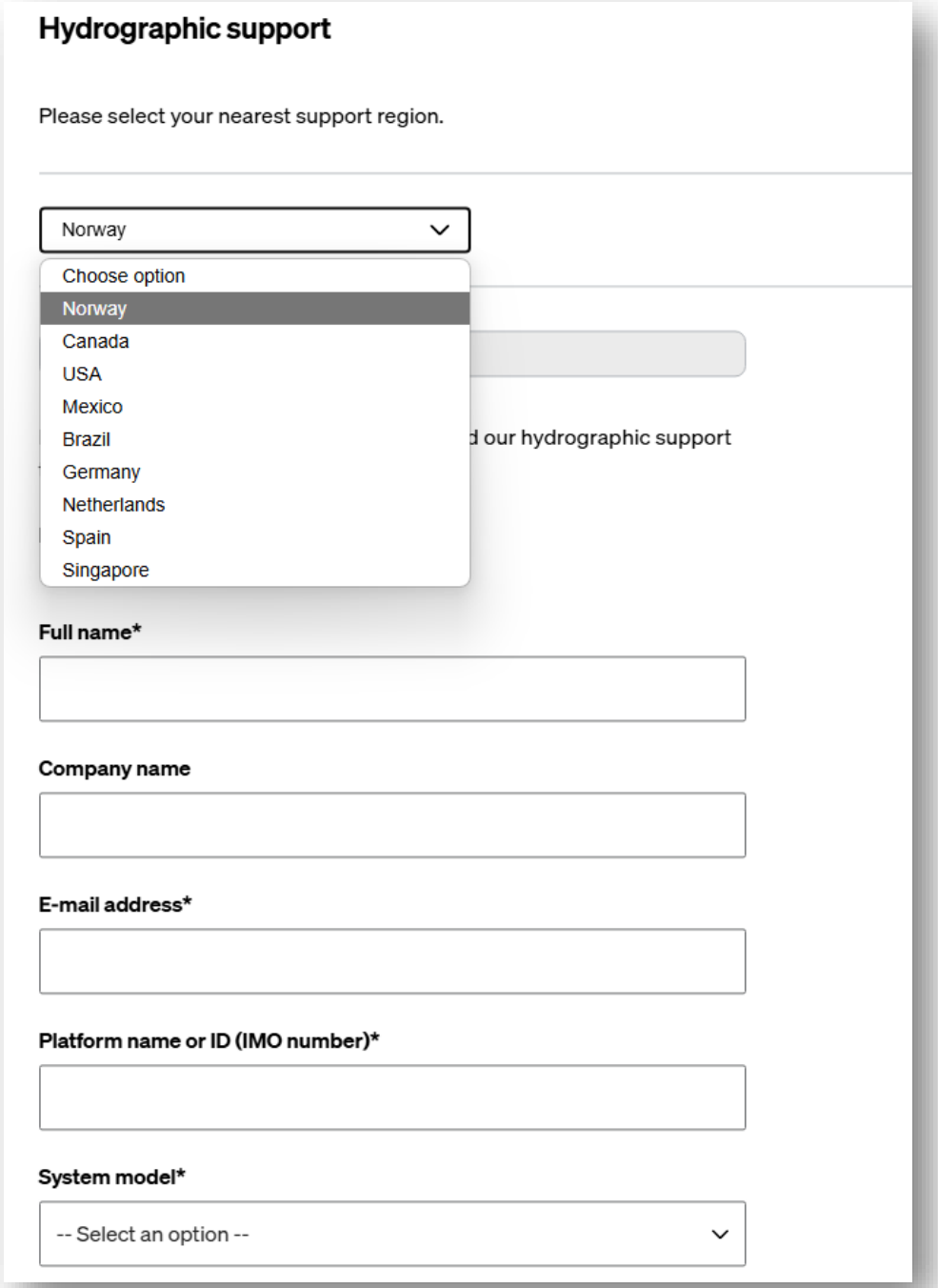
KONGSBERG

Help and Support

Customer Support Form

[Contact hydrographic support - Kongsberg Discovery]

- Select the office you want to contact



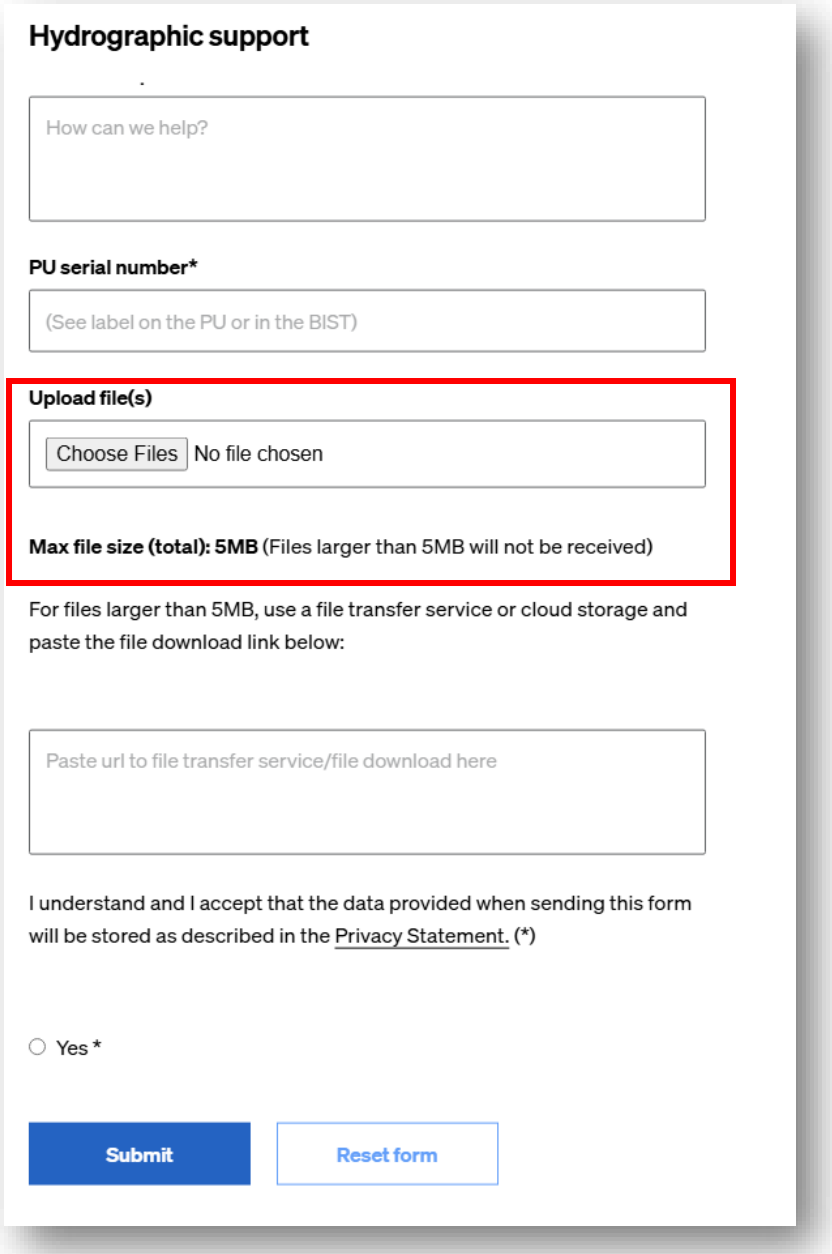
KONGSBERG

Help and Support

Customer Support Form

[Contact hydrographic support - Kongsberg Discovery]

- Add uploads such as BIST, log files, screenshots, etc.

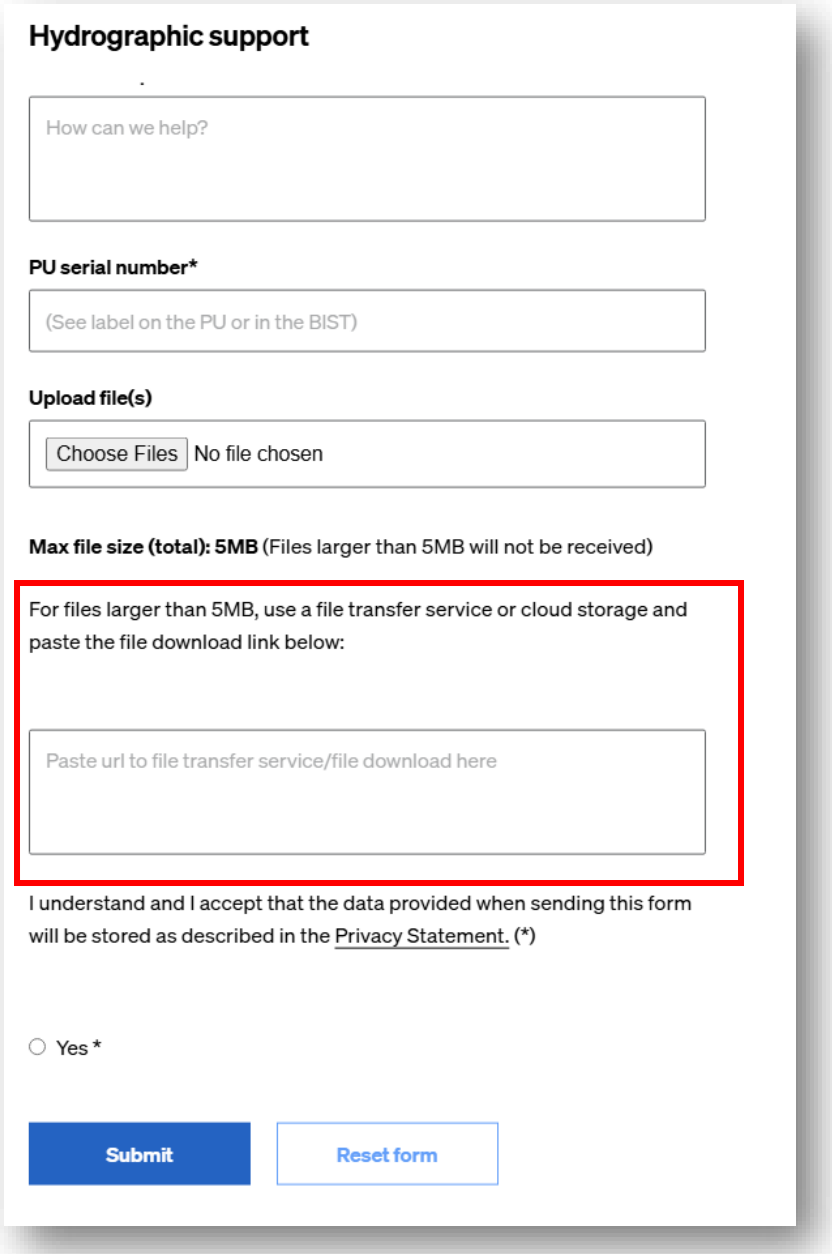


Help and Support

Customer Support Form

[Contact hydrographic support - Kongsberg Discovery]

- Include a link for a larger file transfer (e.g., raw data) Dropbox, google drive, sendgb, wetransfer, etc.



Global Assistance

- USA: support.lynnwood@kd.kongsberg.com
- Mexico: support.mexico@kd.kongsberg.com
- Canada: support.halifax.umap@kd.kongsberg.com
- Norway: support.umap@kd.kongsberg.com
- Spain: support.spain@kd.kongsberg.com
- The Netherlands: discovery.nl@kd.kongsberg.com
- Germany: support.germany@kd.kongsberg.com
- Brazil: km.support.rio@km.kongsberg.com
- Singapore: km.support.singapore@km.kongsberg.com

Sign up for mapping news updates - Kongsberg Discovery

Sign up for Mapping News Updates

Stay updated!

Subscribe to be notified when we update our EM Multibeams, sub-bottom profilers and K-Sync.

If you would like to be informed when a software update is available, please sign up to the mailing list:

Yes, I will like to receive information *

Contact name

Company name *

Please add your e-mail: *

By checking off, you confirm that you will recieve information about software upgrades on the selected products.

Please slide the bar to the right to confirm.

Locked : form can't be submitted

SUBMIT

A new software update for Kongsberg Discovery seabed mapping systems has been made available

The following system software has been updated:

System	New version	Short release description
		There are separate release notes for the EM, K-Controller and SIS5 software. There is a new document for updating the EM processing unit.
EM2042	1.3.0	Bundled with SIS 5.15.0 and K-Controller 3.3.1 - See release notes for detailed description. EM2042 600kHz support has been improved, firmware upgrade for the RX fixes an issue with rapid power cycling and updated instructions to upgrade the system firmware are included with the installation documentation.
If you want to upgrade from Single to Dual RX, you need to send the System Report to support.umap@kd.kongsberg.com for verification. The System Report is on the BIST page in the K-Controller installation parameters menu. Run the test, save to file, and send the file to customer support.		
SIS 5	5.15.0	See release ntoe for updated bug fixes and improvements. New features: QuickGrid, faster water column display, sound velocity plots.
K-Controller	3.3.1	See release note for updated bug fixes and improvements. New features: automatic telnet logging, installation password and custom runtime page.

KONGSBERG

Review

Minutes from RVTEC 2024

- General dissatisfaction with performance of HWS, old and new models, particularly related to realtime gridding issues
  - Release of SIS 5.15 with QuickGrid
  - HWS with Windows 11 release this winter

- Olex has not yet adopted KMALL format – affecting a few UNOLS ships and NOAA FSV's
  - Colleen contacted Olex and provided them with all necessary information and promise of support
  - Has not been prioritized by Olex – recommend pressure from customers

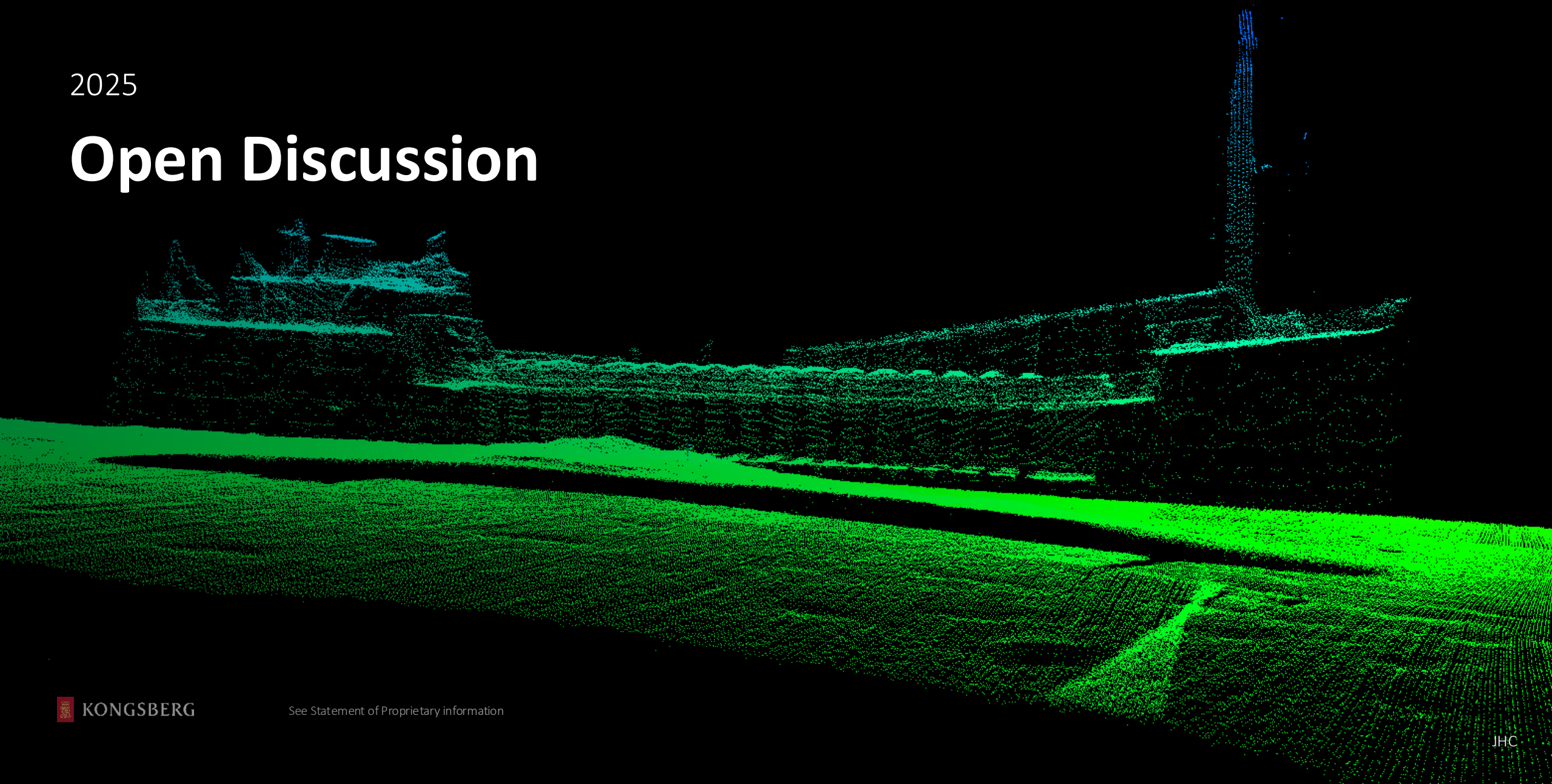
- Virtual machine support
  - Working with Kongsberg Common Hardware to develop a VM release
  - Windows 11 works better
  - Connect to PU with a laptop to do hardware updates

- Communication of security issues regarding software or hardware
  - Our systems are designed to operate in isolation. If connected to external resources, this is the responsibility of the user.
  - This would be issued as a technical notice from customer support
  - Currently working on CRA requirement compliance (December 2027) to receive certification (IEC 62443/SL1 – Protection against caual or coincidental violation) for all our products
    - If you do something that you did not mean to, e.g., making incorrect connections, it will not hurt you… you have to manually reconfigure the system

- 2040 backscatter calibration
  - New tool in K-Controller aiming for winter 2026 – EM2042 first

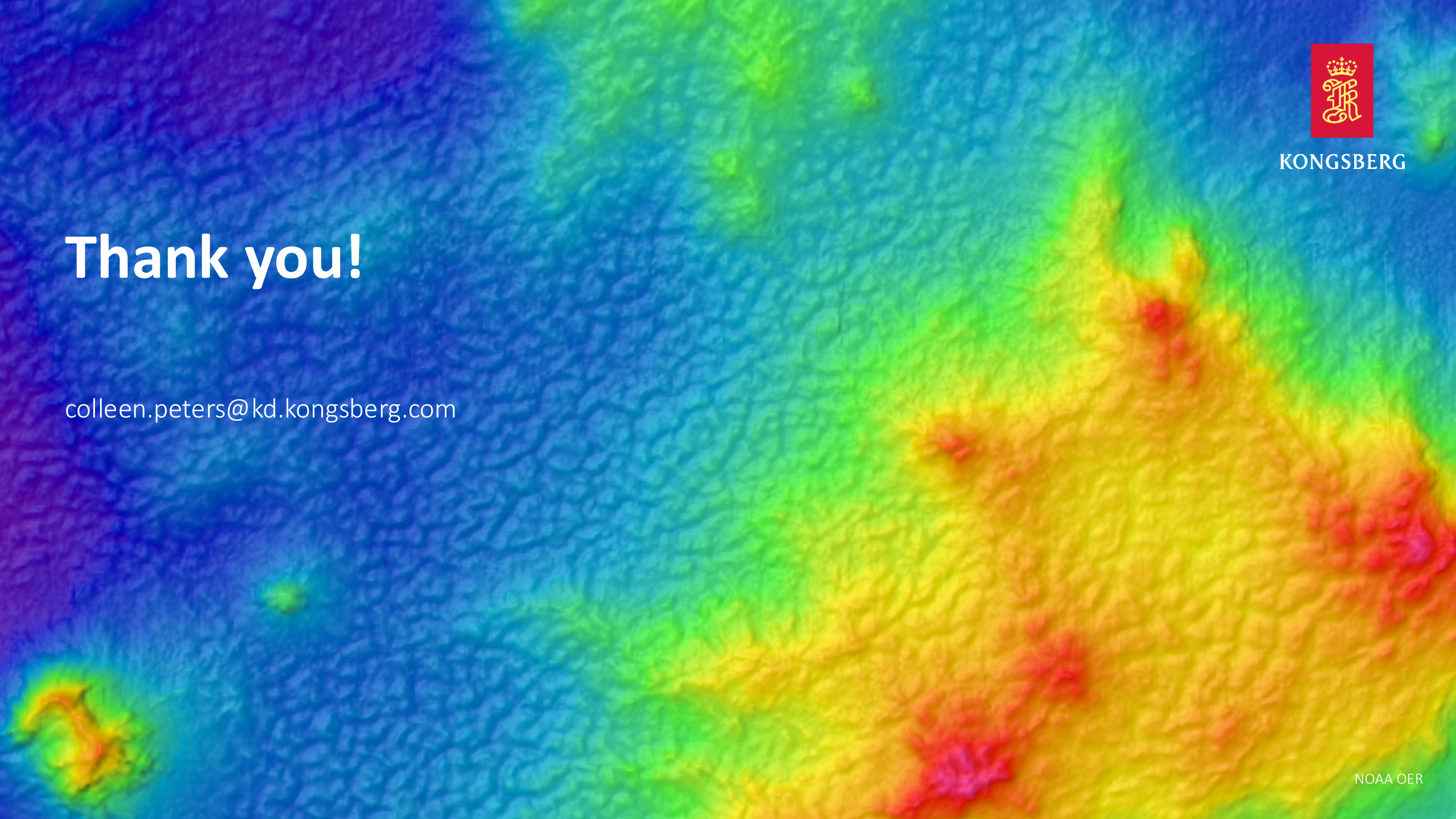
2025

Open Discussion



KONGSBERG

JHC



KONGSBERG

Thank you!

colleen.peters@kd.kongsberg.com

NOAA OER