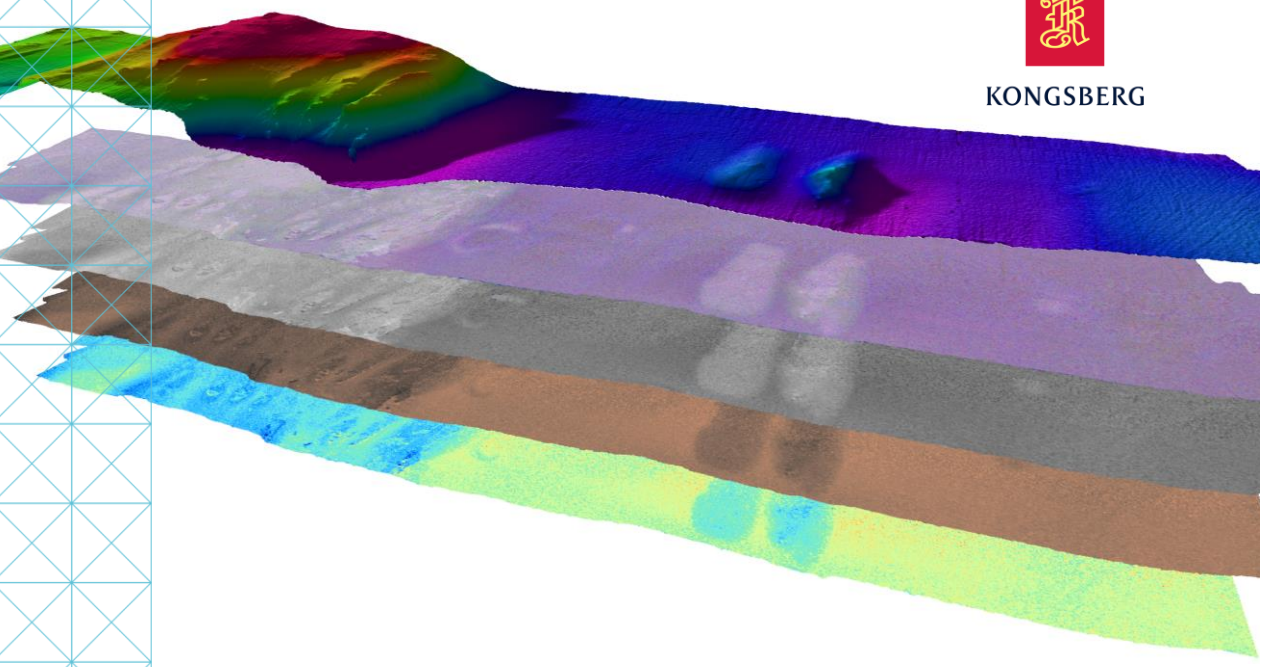
EM® MULTIFREQUENCY MODE

KONGSBERG



EM® MULTIFREQUENCY MODE – FLEXIBILITY WITHOUT COMPRIMISE

EM® MultiFrequency mode

HIGHLIGHTS

- Up to five different frequencies available
- Configure frequency, pulse and swath width for each ping
- Flexible and easy to use
- Available for EM 2040 Single RX EM 2040P

MultiFrequency mode enables the EM 2040 system to change the swath configuration between multibeam pings. This allows the user to dynamically define the frequency, swath width (coverage) and pulse mode for up to five consecutive pings, generating a true multi-layered dataset.

This solution provides a flexibility that extends to a wide range of applications from habitat mapping to engineering analysis and general mapping.

EM® MultiFrequency mode user interface

EM 2040 MultiFrequency backscatter picture curtesy of CCOM and UNH
Front- and back-page pictures processed and augmented using QPS Qimera, FMGT, FMMW and Fledermaus

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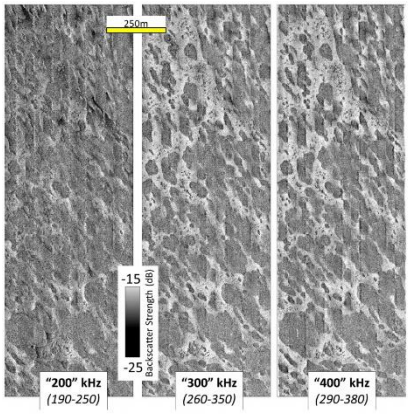
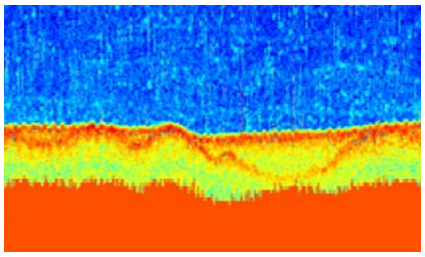


Obtain all the facets of backscatter with EM® MultiFrequency Backscatter

EM® MultiFrequency Backscatter

MultiFrequency Backscatter allows the user to ensonify the seabed with different frequencies to accurately map the seafloors dependency to frequency variation. Users can choose 1 to 5 sequential pings of fully configurable frequency and pulse length settings resulting in an efficient, uncompromised solution. KONGSBERG offers backscatter calibration services for all of our EM multibeams, ensuring consistent backscatter levels across your vessel and multibeam portfolio.



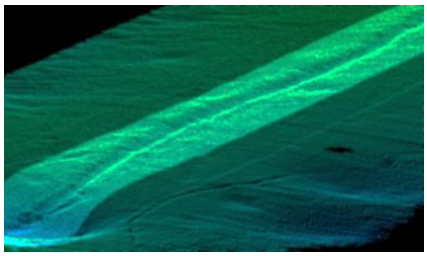
Understand the ambiguity of the sediments using EM® MultiFrequency Bathymetry

EM® MultiFrequency Bathymetry

Bathymetry acquired over challenging sediment types can often be ambiguous dependent on the frequency of the multibeam, as penetration may vary with frequency and pulse length. MultiFrequency Bathymetry helps resolve that ambiguity by accurately defining, in a single pass, the deltas of the depth measurement within the swath collected. This has particular application in dynamic environments with high silt content and high sediment transportation, whereby all previous solutions required different multibeam and high temporal variation. No other solution allows a dynamic model of sediment transportation and sediment build up to be constructed.

EM® MultiFrequency Pulse

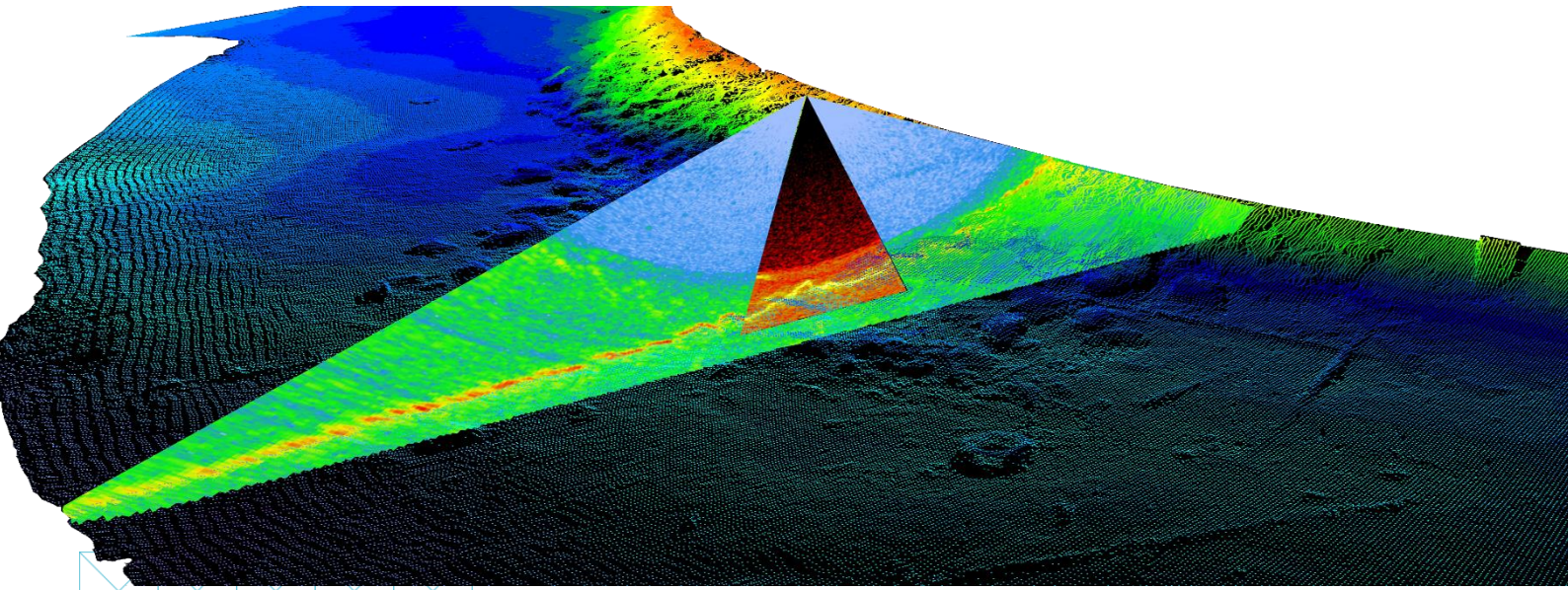
The flexibility of the MultiFrequency mode includes the option to select which pulse length mode to send for each frequency. With MultiFrequency Pulse the user can select the same frequency for all pings but vary the pulse lengths. By doing this, users will be able to monitor how the seabed characteristics change with the pulse length, adding another layer to the seabed classification effort.



Alternate between wide and narrow swaths with EM® MultiFrequency Inspection

EM® MultiFrequency Inspection

With MultiFrequency Inspection, the user sets the EM to alternate between a wide swath frequency and a narrow swath high resolution frequency, thus maintaining the coverage requirement and the resolution requirement of the inspection. Combined with the new Ultra High Frequency modes for the EM 2040, the flexibility of the EM® MultiFrequency mode will allow users to freely select when to focus on resolution and when to focus on coverage.



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