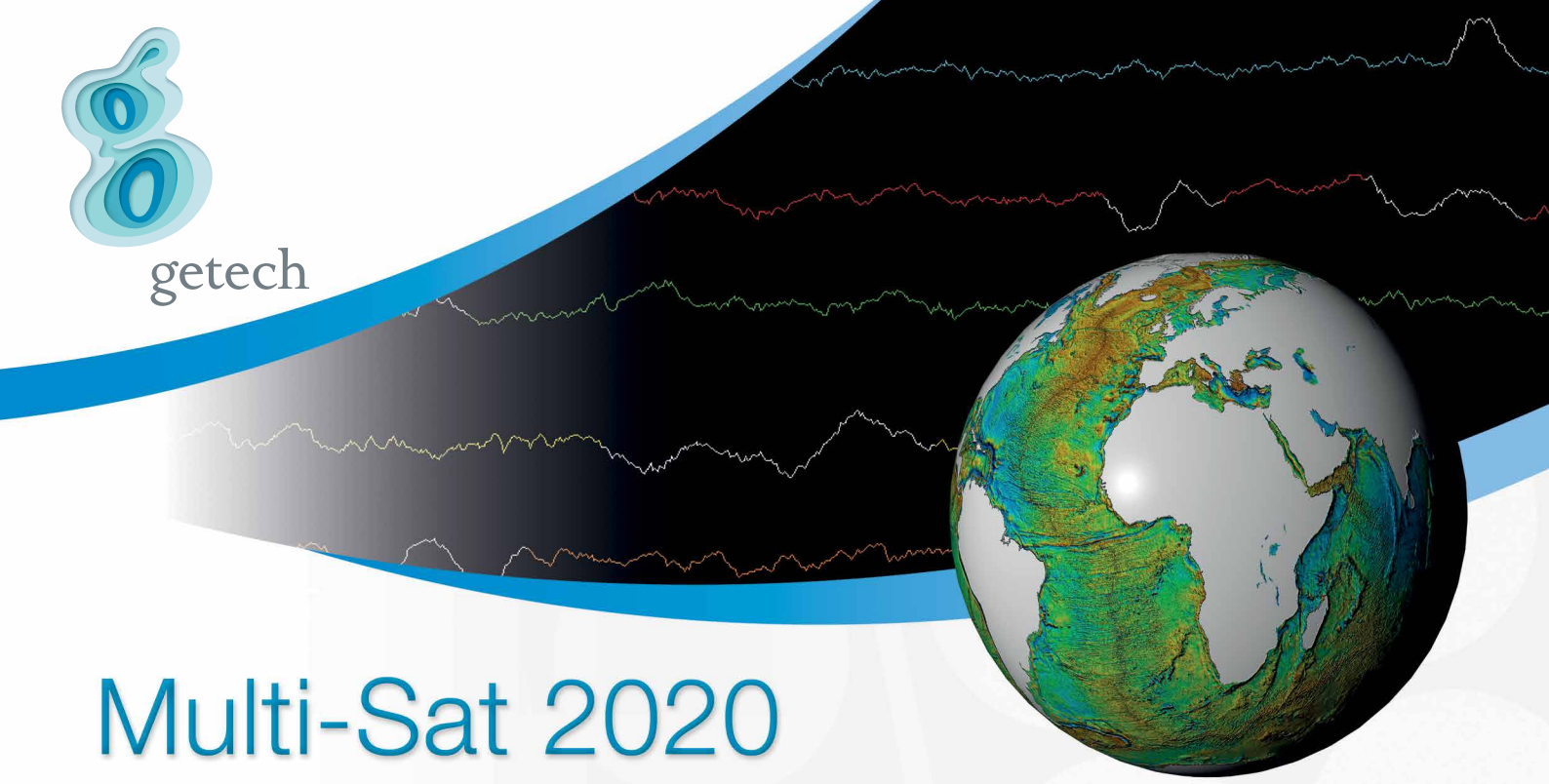
getech



Multi-Sat 2020

Be the first to access the new generation of satellite-derived gravity data and reduce your exploration risk

Overview

Getech has been at the forefront of advances in developing gravity data from satellite altimetry for many years, most recently culminating in the generation of our Multi-Sat global gravity product, which covers all offshore areas of the world plus 20 large lakes.

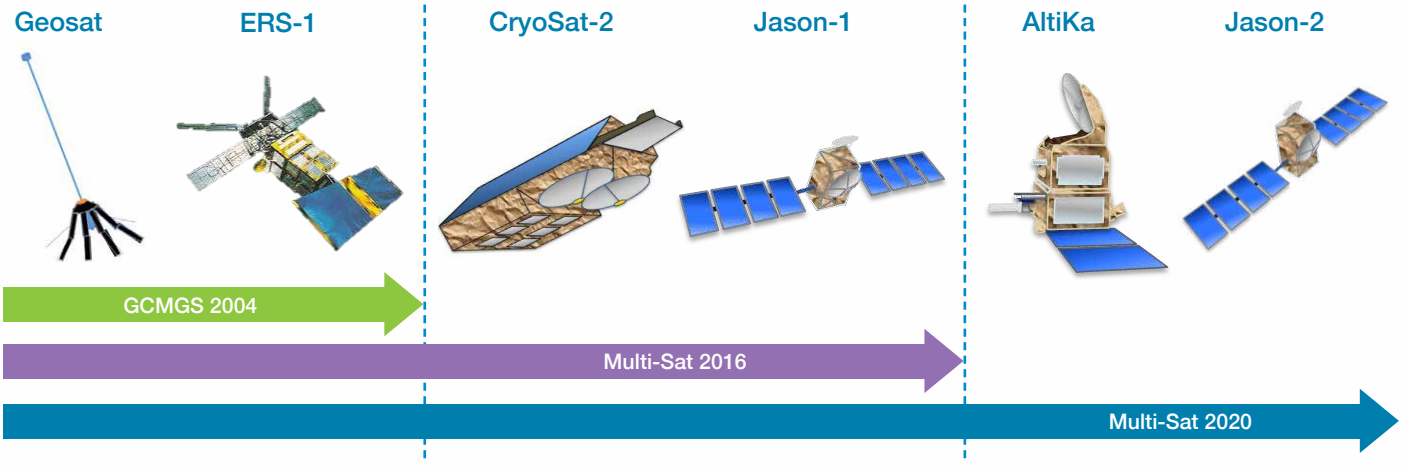
The new geodetic missions of satellites AltiKa and Jason-2 offer an opportunity for us to significantly upgrade the Multi-Sat product as their new orbital paths adding to their data coverage.

Having data from **more satellites** leads to **reduced track spacing** and enables us to produce gravity data with more detail.

Our 4-month feasibility study has shown promising results, and we are now offering sponsors a chance to purchase the full global data set at a reduced rate.

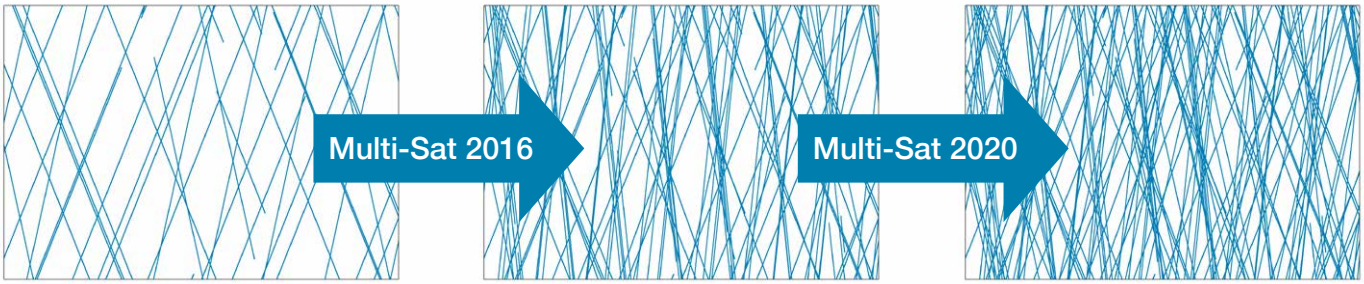
More Satellites

In 2004, Getech produced GCMGS, a global gravity grid based on altimeter data from two satellites: Geosat and ERS-1. In 2016 we were able to significantly improve the grid resolution, accuracy and proximity to the coast thanks to the addition of altimeter data from two further satellites: CryoSat-2 and Jason-1. For the next stage in increasing the grid resolution, we are adding altimeter data from two new satellite missions: AltiKa and Jason-2.



Reduced Track Spacing

In 2004, the track line spacing at the equator yielded from the first two satellites was 3 km. Adding data from two satellites in 2016 reduced the track line spacing to 2 km. With six satellites, the track line spacing is further reduced to 1.5 km.

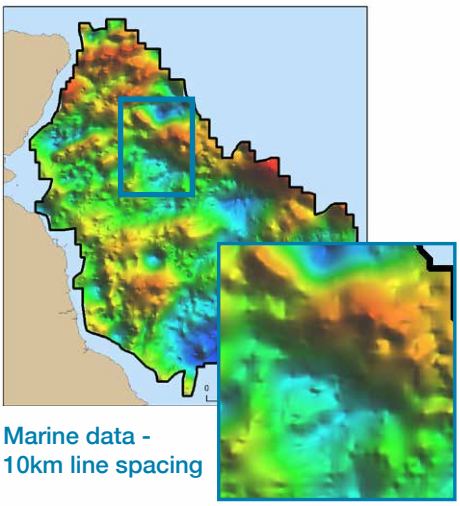


More detail

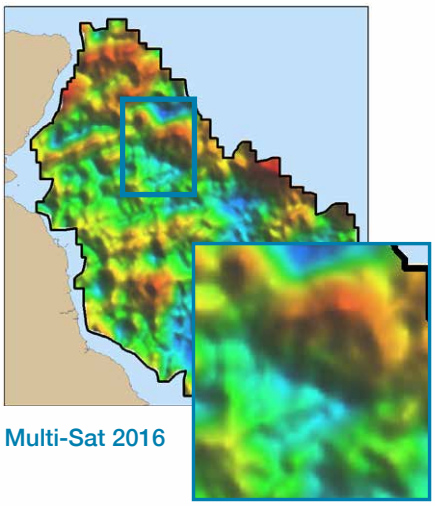
Following our 4-month feasibility study, there is a strong indication that significant enhancements can be made to the Multi-Sat grid by integrating additional altimeter data from AltiKa and Jason-2.

Visual comparisons with both the Multi-Sat 2016 and marine data show that the Multi-Sat 2020 uncovers shorter-wavelength features.

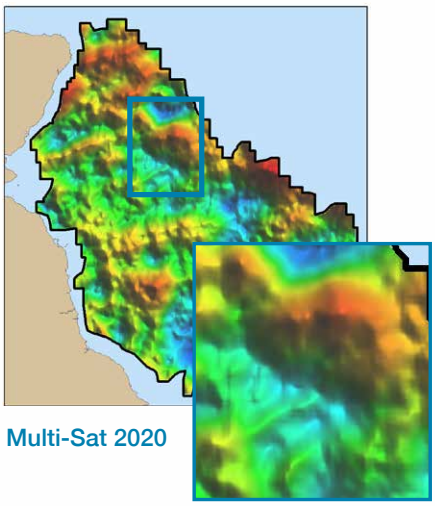
Statistical correlation with marine data is also improved: the correlation coefficient was improved from 0.938 in the 2004 study to 0.955 in 2016, and further improved to 0.967 in the 2020 feasibility study.



Marine data - 10km line spacing



Multi-Sat 2016



Multi-Sat 2020

Project Workflow and Timing

This sponsorship opportunity is open from now until project commencement, which is anticipated to be July 2019. The project is scheduled for completion by end-2020. The workflow will consist of:

- Database construction
- A data model
- Repicking
- Editing/validation
- Editing/filtering tests
- Cross-over levelling
- Micro-levelling
- Conversion to gravity
- Bathymetry upgrade

Deliverables

- Global free-air, Bouguer and isostatic residual gravity grids at 1 km cell size
- Global grid derivatives including first vertical, total horizontal, high-pass filter and tilt
- A global digital elevation model grid at 1 km cell size
- Profile locations for all contributing altimeter surface tracks

To learn more about Multi-Sat 2020 Data:

Email: info@getech.com

Website: www.getech.com

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