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# New Arctic geophysical data from the Yermak Plateau (northern Svalbard margin)

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This research is based on new Arctic geophysical data, in particular from the Yermak Plateau and the northern Svalbard margin (between 80° N and 81°30'N), covering a bathymetric range from 400m to 1300m depth. These data include very high-resolution swath bathymetry and seabed nature information collected last July in the framework of the Italian Navy High North program, led by the Italian Hydrographic Institute. A DTM and an acoustic backscatter mosaic (both at 30m cell) were produced to create a high-resolution seabed mapping. The investigated area is characterised by marine glaciogenic landforms from glaciation events during the Quaternary. Different sets of glaciogenic landforms were analysed with regard to their shapes and spatial distribution. The high-resolution mapping shows the typical glacial erosion by ice-produced lineations and iceberg ploughmarks of various dimensions, whereas the upper continental slope is carved by a complex canyon and channel system. The intra-channel ridges shows a smoother morphology, likely due to sediment drape. Locally, the flanks of the deeper canyons are affected by erosive gullies. The data are a precious contribution to the bathymetric database collected within the cooperation and coordination with coastal countries (nautical charts, seabed mapping and general bathymetric chart of the oceans). They provide increase knowledge to constrain the dynamics of processes and timing of glacial events.