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**Seafloor studies at NURC/SACLANTCEN: The first 50 years**  
**(1959-2008)**

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Characterization of the seafloor has always been one of the central research themes at NURC/SACLANTCEN. These studies, reviewed in this presentation, generally supported acoustic measurement and modeling programs. Motivation for bottom-interacting acoustic research began with the deep-water ASW programs of the 60s and 70s (long-range propagation, reflection, and bottom loss measurements) and slowly evolved into support for high-frequency, shallow-water MCM programs of the 90s and 00s (acoustic propagation within sediments, penetration into and scattering from the sediment surface). Seafloor characterization has included scales appropriate for plate tectonics to sub-mm scale sediment microstructure used to statistically characterize sediment heterogeneity for high-frequency acoustic studies. Although collection and analysis of sediment cores has been the dominate methods of seafloor characterization, direct in situ measurements and remote acoustic characterization has often been used. Seafloor studies were first rate, cutting edge research as demonstrated by quality and quantity of peer-reviewed publications by NURC/SACLANTCEN scientists and their post-SACLANTCEN research careers. The excellent engineering department made possible the development of unique acoustic and seafloor sampling equipment. Ship support for seafloor studies has always been a NURC/SACLANTCEN advantage that has attracted many scientists to multi-national, multi-institutional experiments and symposia.