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Geological setting and results of Legs 41, 47a and 50 off northwest Africa

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Legs 41, 47a and 50 have been devoted to the study of the eastern Atlantic and its margin by drilling on the slope, on the rise and in the adjacent basins off North Africa. South of the Canary Islands the Mesozoic history of the basins is extremely similar to that of the northwest Atlantic since at least the early Late Jurassic. Carbonates have been deposited in moderately deep basins on newly formed oceanic crust until both subsidence and partial isolation of the basins during the early Cretaceous favoured accumulation of carbonaceous shales. During the same times carbonate platforms then carbonaceous mudstones are found higher on the adjacent margins. North of the Canary Islands the Moroccan basin received massive terrigenous deposits during the latest Jurassic and early Cretaceous, possibly as a consequence of the tectonic evolution of the western Atlas region. The Cainozoic is characterized both by major changes is palaeo-oceanographic conditions that influence greatly the amounts and nature of the biogenic pelagic sediments, and by renewed tectonic activity in the basins as evidenced by the creation of volcanic edifices in the Cape Verde and Canary Islands areas and the uplift of the Cape Verde Rise.