Large scale tectonics as controlling factor of the Upper Triassic to Middle Jurassic basin fills in Svalbard and nearby pan-Arctic Basins

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In Svalbard, we have subdivided the shallow marine to paralic Norian to Bathonian succession into five main sequences. The sequences are separated by well-defined key sequence stratigraphic bounding surfaces, which are correlated throughout the archipelago. The sequences are clearly linked to pan-Arctic or nearby regional tectonism. In ascending order the five bounding lower surfaces are; i) Pan Arctic Early Norian flooding; ii) subaerial unconformity near base Rhaetian related to the onset of the Novaya Zemlya Fold and Thrust Belt; iii) shoreline ravinement surface near the Pliensbachian-Toarcian transition due to uplift caused by tectonic reorganisation; iv) subaerial unconformity in Bajocian due to onset of the early phase of the North Atlantic and Amerasian rift systems in basins to the west and north, respectively, and v) sudden subsidence of the basin followed by "mid" Bathonian flooding. We correlate these five key sequence stratigraphic bounding surfaces in Svalbard with similar surfaces in the southwestern Barents Sea as well as in the Sverdrup Basin and in basins at the northernmost part of the North Atlantic conjugate margins. The sequences are not necessarily chronostratigraphic correlative or related to the same tectonism, but closely follow the near time-equivalent key sequence stratigraphic surfaces and facies stacking and shift in drainage patterns. We demonstrate the importance of tectonic events for controlling the sequence stratigraphy, facies development and source to sink trends in Svalbard and the nearby Arctic basins.