Expanded mid-Atlantic Deep Water Allostratigraphy
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X - middle Miocene
Au - late Oligocene
Beta - middle Early Cretaceous
Late Oligocene (Au) bottom current erosion is highest in the southern portion of the margin resulting in a steeper slope (relative to the northern portion of the margin).

In the south, down-slope creep along steepened rise surfaces may have played a role in producing large, retrogressive failures from Au to present.

In the north, seafloor fans are prevalent and larger in post-Au sedimentary units.

The presence of fans in the north vs. large slope failures in the south indicates that late Oligocene bottom current erosion played a key role in controlling how sediments have since been transported to the deep sea along the U.S. mid-Atlantic margin.
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Expanded U.S. mid-Atlantic Margin Deep-Water Allostratigraphy: Bottom-Current Controls on Margin Evolution

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Key Points:
- Expanded U.S. mid-Atlantic Margin Deep-Water Allostratigraphy
- Bottom-Current Controls on Margin Evolution

Abstract:
This study describes the deep-water allostratigraphy of the U.S. mid-Atlantic Margin, focusing on the development of Slope Breaks in response to bottom currents. The research utilized high-resolution seismic data, gravity core data, and sedimentological and biological samples from multiple cruises. The study area is located along the continental margin from Rhode Island to Delaware, and extends from the shelf edge to the continental slope.

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References:

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