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Transect Plot Description

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Note: Please see “Overview of PX and PXT Shoreline Change Rate Methods” for further description of these shoreline change rate methods.

An effective way to examine and compare a shoreline change model is through individual transect plots (figures 1 and 2). In these plots the horizontal axis is time (historical shoreline date) and the vertical axis is relative (normalized) shoreline distance. The historical shoreline positions are depicted as red crosses and the shoreline change model as depicted with a blue line. The PX methods (LX, RX, EX) produce shoreline change rates which vary in the alongshore direction but are constant in time. Thus the PX models are linear (constant rate) when viewed in the individual transect plots (fig. 1). If the PXT methods (LXT, RXT, EXT) identify acceleration in the shoreline change rate, they will produce shoreline change models with rates that vary in the alongshore direction and with time. Thus, the PXT models may be non-linear when viewed in the individual transect plots (fig. 2).

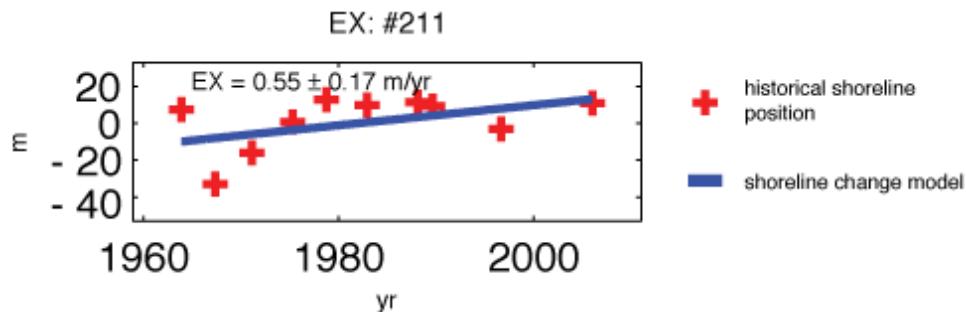


Figure 1: Individual transect plot of a PX shoreline change model. The model type (EX) and transect number are shown at the top. Historical shoreline time is shown on the horizontal axis and relative (normalized) shoreline distance is shown on the vertical axis. The historical shoreline positions are depicted as red crosses. The shoreline change model is depicted as a blue line. The rate and its uncertainty are shown in the upper left. Note: The shoreline change rate is constant with time, i.e., linear.

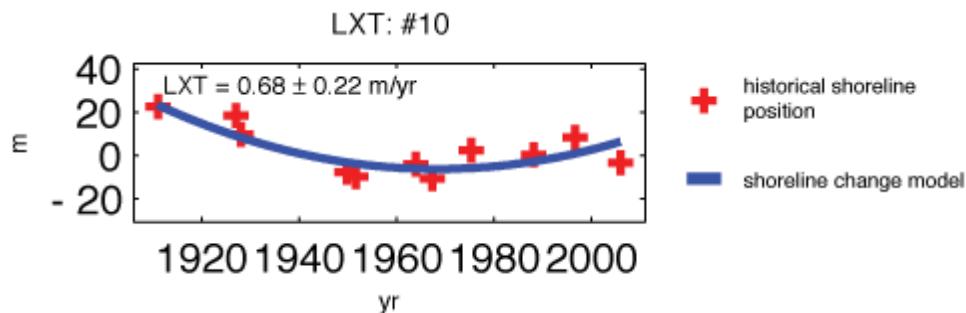


Figure 2: Individual transect plot of a PXT (LXT) shoreline change model. Note: The shoreline change rate varies with time, i.e., accelerated with respect to time. The model indicates accretion (negative slope) from 1911 - 1967 and erosion (positive slope) from 1967 – 2005 at this transect.

