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## Effects of channel engineering on flood dynamics along the middle and lower Rhône over the last two centuries.

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The Rhône River has undergone many anthropogenic transformations to improve his navigability and produce hydroelectricity since the mid-19th century. From the longitudinal dikes of the 1850's to the hydroelectric diversion schemes of the 1950's and 1960's, these structures had a direct impact on the channel geometry along the 300km of river course between Lyon (France) and the Mediterranean Sea. An indirect consequence could be a change in the flood dynamics along the channel course, caused by the simplification of the channel patterns and the floodplain accretion. This communication aims to assess the potential changes in the flood propagation along the middle and lower Rhône valley throughout a century of anthropogenic reconfigurations of the channel. The possible impact of these human pressures on the inundation risk and the attenuation of the flood peak discharge is also discussed. Through the use of digitized hydrometric data recorded since 1840 on multiple stream gauges of the Rhône river, a variety of floods of the same type and magnitude are selected. The oceanic flood types (as described by Pardé, 1925) that take their origin from heavy rainfalls upstream of the area of interest are preferred. Thus, complex flood waves due to floods from the lower Rhône valley tributaries are avoided, to keep the analysis as simple as possible. The flood travel time and the peak discharge attenuation of the selected events are compared over the years of channel transformations, permitting us to estimate the impact of anthropogenic pressures on the flood dynamics.