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The interplanetary shock impact on the Earth's magnetotail

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We present multispacecraft observations of the Earth's magnetotail motion and deformation as a result of an interplanetary (IP) shock arrival. Since April 2011, two Artemis spacecraft spend about four days in the near lunar orbit at the Earth's magnetotail and the BMSW instrument onboard the Spektr-R project is located three months per year at the same region. During this period, a lot of CMEs and IP shocks were observed in the solar wind. We trace the IP shock propagation from the L1 point (Wind and ACE) to the tail where shock arrival is registered by Themis/Artemis and Spektr-R. We discuss large-scale dynamic changes of the magnetotail motion as well as the IP shock influence on the reconnection process.