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The activation of the Cosgrove hotspot in Tasmania – a key event solving the Tunguska problem.

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Day by day a slow uplift of the firm earth was measured in Tasmania from 7th June till 29th June, 1908 [1]. This uplift was terminated as soon as the Tunguska blast took place on the opposite side of the Earth in Siberia in the morning on 30th June 1908. Both, the lunisolar gravitation and magnetic fields, could had have an effect on the core-mantle boundary [2]. The LLSVPs from this layer could trigger mantle plumes by means of convection [3]. Both Tasmania and the eastern Siberia are regions having old mantle plumes (there is the Cosgrove hotspot from Australia to Tasmania [4]). Probably, all Earth's mantle plumes are interconnected and form deeply located networks with excess to the surface. The fluidal pressure of the Cosgrove plume-fed hotspot under Tasmania had to be reduced, discharging/degassing via the way to the Tunguska volcanic area on 30th June 1908, resulting in the termination of the surface uplift in Tasmania. Since meteorites could not have caused the uplift of earth in Tasmania, the Tunguska event has an endogenic origin.

[1] Scott, H. (1908) Nature 78, 376. [2] German, B. (2010) EPSC 5, 430. [3] Duncombe, J. (2019) Eos, 100. [4].

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