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## From the North Atlantic Oscillation to the Tropics and back...

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We start with the severe European winter of 1962/63, a winter when the North Atlantic Oscillation (NAO) index was strongly negative with persistent easterly wind anomalies across northern Europe and the British Isles. We then note that the NAO is a manifestation of synoptic Rossby wave breaking. The positive feedback with which synoptic eddies act to maintain the atmospheric jet stream against friction turns out to also be the mechanism by which the equatorial deep jets in the ocean are maintained against dissipation. We were fortunate to be able to demonstrate this in both a simple model set-up that supports deep jets and directly from mooring data at 23 W on the equator in the Atlantic Ocean. The deep jets offer some potential for prediction over the neighbouring African continent on interannual time scales. This then leads to a discussion of the importance of the tropics for prediction on both seasonal and decadal time scales and longer, linking back to the winter of 1962/63. A simple statistical model is used to illustrate many features of predictability, including non-stationarity and the so-called signal to noise paradox.