Did the Recurvature, Extratropical Transition, and Subsequent Reintensification as an Extratropical Cyclone of Western North Pacific Supertyphoon Nuri Rearrange the Northern Hemisphere Flow Pattern Sufficiently to Trigger 2014–2015 Winter Onset over North America in November 2014?

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Winter 2014–2015 began with a vengeance in mid-November 2014 over much of the CONUS east of the Rockies. The coldest November weather in 35 years was ushered in by a sequence of arctic air masses that progressively advanced eastward and southward across the CONUS. At issue is how the recurvature and extratropical transition (ET) of Supertyphoon Nuri in the western Pacific in early November 2014, and its subsequent explosive reintensification as an extratropical cyclone (EC), disrupted the North Pacific jet stream and downstream NH circulation. The Nuri ET/EC produced high-latitude ridging and the formation of an omega block over western North America, and resulted in downstream baroclinic development, downstream Rossby wave dispersion, and the development of a deep trough over eastern North America. This sequence of Nuri-induced NH circulation changes culminated in an epic lake-effect snowstorm in western New York on 18-19 November 2014 in response to the passage of an arctic PV anomaly across Lake Erie. This arctic PV anomaly was steered equatorward in the strong northerly flow to the east of the aforementioned omega block. Subsequent storms that formed along the southern and eastern margins of this arctic air mass produced widespread disruption of Thanksgiving travel.