



The modern climatology of Northern Eurasia tornadoes and waterspouts

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A qualitative leap in obtaining and disseminating information about rare weather events (like tornadoes) has occurred recently because of the digital revolution. In recent years, a set of new climatologies of tornadoes was presented for many European countries but not for fUSSR territory.

In this study, we present the modern climatology of tornadoes and waterspouts in Northern Eurasia, based on different sources, including historical and scientific literature sources and surveys, weather reports, newspaper stories, eyewitnesses reports, satellite data (for tornado tracks) and so on. Partly, these tornado cases are collected in European Severe Weather Database. Around 2,300 tornadoes and waterspouts were found in fUSSR countries since XII century till the year of 2016. It was found that June and July are the most favorable months and the afternoon is the most favorable time for tornadoes in fUSSR. Waterspouts (mainly over the Black Sea) are more common in August. In recent years, around 100-150 tornadoes and waterspouts have been observed over Northern Eurasia every year with around 35 (12, 1.5) tornadoes of F1 (F2, F3) Fujita intensity.

The most severe tornadoes are associated with cold fronts or such mesoscale structures as supercells. Typical values of diagnostic severe weather indices (like CAPE, SRH, SWEAT, K-index etc.) were assessed for fUSSR tornadoes based on ERA-Interim data.