Freezing rain forecasting: experiences and case studies

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Freezing rain is a relatively complex phenomenon, with rare occurrence but often related to serious damages and threats. With only few tools available, it has always been a strong challenge for the operational forecasters – in terms of appearance, intensity and impacts. Croatia - as well as Slovenia and Hungary - experienced an extreme and disastrous event in winter 2014, with 300 million Euro damage, and temporal collapse of the traffic and energy system.

This paper presents recent developments and experiences in freezing rain operational forecasting. A major tool used recently is the new 'precipitation type' product provided by ECMWF, and so far with overall very good performance. It is accompanied by other diagnostic tool defined in the Croatian Hydrological and Meteorological Service. Several recent cases will be presented, and experiences and forecast performance will be discussed.