Client Specific weather forecasts in decision support systems for the transport sector

I Smeding, D Malda, and J Wisse

Netherlands (mureau@weer.nl)

MeteoGroup provides several client specific solutions to public and private companies responsible for rail, road and marine traffic. For these parties weather conditions can have significant impact on their infrastructure. There is an increasing demand for custom made solutions providing relevant weather information for decision support systems. These systems assess risk, limit exposure and prepare communication to the general public.

Different examples will be presented in which weather forecasts are used to mitigate the risks of high impact weather events. We will also present some experiences with these operational systems.

The first example describes a winter forecasting system that is used to optimize road gritting. We will show how these forecasts are visualized and how customers use the forecasts to avoid slippery roads and avoid accidents and delays.

The second example shows a new decision support system introduced by the main organizations responsible for the Dutch rail network (NS and ProRail) to mitigate risk and take necessary actions before significant weather events occur. This system is partly based on weather forecasts and associated risks which have been investigated together with MeteoGroup. This has resulted in tailored probability forecasts for the relevant snow and cold events, strongly depending on ECMWF's ensemble prediction system.