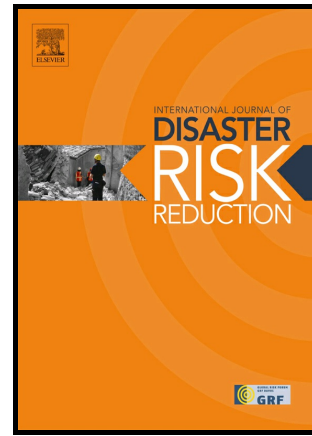


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Towards user-orientated weather warnings

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Abstract

National meteorological services are continually working on improvements of their weather and warning information. Based on five workshops with members of the German national meteorological service and with forecast end-users from emergency management, water management, road maintenance, the media, and others, we discuss operational practices regarding the processing of weather information and specific end-user needs. We focus on the question what users' requirements for a warning are and how meteorological services can address the various user needs. Results show that in order to improve weather (warning) communication, spatial and temporal precision, acceptability and comprehensibility as well as identification of relevant information and technical requirements need to be addressed. A new challenge is the inclusion of impact information provided by e.g. emergency services and social media. As we identify opportunities and constraints for future developments, we emphasise the importance of a strong cooperation and a constant dialogue and discussion of needs between meteorological services and end-users to ensure quality of impact-based forecasts.

Keywords: Weather Communication, Weather Warnings, User Requirements, Impact, Forecast Value

1 Introduction

As the federal authority entrusted with the issuing of severe weather warnings for Germany, the national meteorological service Deutscher Wetterdienst (DWD) is continually working on improvements of its weather and warning information. Advancements in meteorology and computer science allow new forecast and warning products that shall enhance forecast precision (Hirschberg et al. 2011). Another major source of progress is the cooperation with end-users of weather information, i.e. emergency services as well as public and private enterprises such as the media or providers of various infrastructures. Previously the dialogue between meteorologists and end-users of weather warnings and meteorological information was at times sparse, to the point that end-users had to cope with whatever was produced by the meteorological agency. Recent trends changed the relationship between users and meteorologists to be much closer and interactive. This is expressed in the founding of new units at the interface between customers and internal development in meteorological services, such as the Product Development and Customer Communication Unit at the DWD. The aim of this

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