



Local-scale atmospheric modeling of hazardous releases - demands and limitations

Kathrin Baumann-Stanzer and Sirma Stenzel

Zentralanstalt für Meteorologie und Geodynamik (ZAMG), Vienna, Austria (k.baumann-stanzer@zamg.ac.at)

A variety of atmospheric transport models – ranging from simple, robust and fast approaches to highly sophisticated model systems are available in today's emergency response systems for crisis management and emergency response planning.

Do these model approaches meet the needs of users and stakeholders? There is a significant contrast between scientific demands to input and model quality and the possibilities of real-life users at fire brigades or federal warning centers.

One of the main duties of ZAMG as National Weather Service is to support decision makers of the crisis management and emergency response units with meteorological information. In emergencies due to hazardous releases to the atmosphere, only little and often insufficient information on the release (release rate, size/height of release and chemical composition) is available in most of the cases.

Based on practical examples from past real events, models and approaches applied by ZAMG during the emergency phase and in the recovery phase are presented.