# TRUSTED SPOTTER NETWORK AUSTRIA

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(Dated: 25 August 2011)

## I. INTRODUCTION

The Trusted Spotter Network Austria TSN is a cooperation between the Austrian meteorological service ZAMG (www.zamg.ac.at), SKYWARN Austria (www.skywarn.at) and the European Severe Storms Laboratory ESSL with its European Severe Weather Database ESWD (http://www.eswd.eu). METEOPICS (www.meteopics.eu) provides a public forum for images of severe weather and damage surveys.



## II. PROCEDURAL METHOD

A "trusted spotter" is a member of SKYWARN AUSTRIA, providing reports about significant or severe weather and consecutive damages to the Austrian national weather service ZAMG.

Since these reports were formerly delivered by fax or email, the usability for immediate response by the forecaster was limited so far. Also, the reliability of the information suffered from the anonymity of these reports. In order to avoid such difficulties, the TSN was established to build up a reliable network between spotters (chasers) and operational forecasters.

For this purpose ZAMG offers an individual training program for spotters, regular workshops and scientific support.

Further, the activity of a "trusted spotter" is facilitated by real time weather information from ZAMG, easily accessible via the internet.

A special web based interface is designed for the purpose of uploading the reports from the trusted spotters (see FIG. 1).



FIG. 1: Web based interface for uploading trusted spotter reports at the homepage of SKYWARN Austria.

The TSN reports are strictly following the ESWD data format and threshold guidelines. Also parameters and event types are reported according to the ESWD rules.

Poster 262 of this ECSS ("New Event Types for the European Severe Weather Database (ESWD)" by Holzer et al.) also refers to this topic.

Further, reports from "trusted spotters" are accepted by ESWD with QC1 clearance.

An Austrian forecaster is now able to display TSN reports within the population of the ESWD data base and additionally at a real time "ESWD Nowcast Mode", which is also web based and hence independent from visualization tools and operating systems.

All reports can be filtered according to time and quality clearance and therefore reduced to display i.e. only the TSN contributions and those comparable in terms of quality control (see FIG. 2).
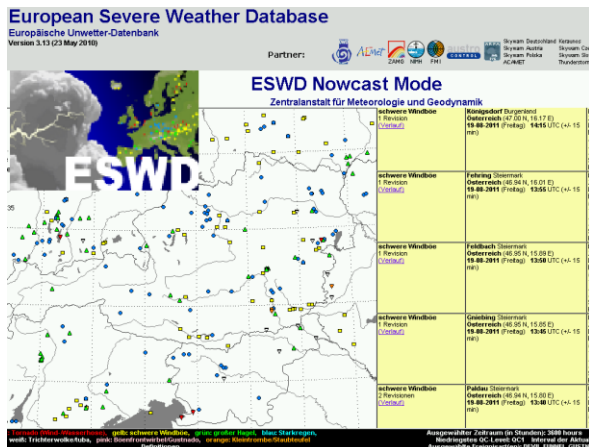
FIG. 2: Real time nowcasting platform for the operational ZAMG forecaster.

Since ESWD does not operate a forum for severe weather images and photos of succeeding damages, METEOPICS generously offered a sub domain of its homepage specifically designed for contributions from TSN and ESWD as an official image data base.

http://www.tsn.meteopics.eu/ provides public access to reviewed contributions from either the trusted spotter network or from ESWD (see FIG. 3).



FIG. 3: Detail from the METEOPICS image platform http://www.tsn.meteopics.eu/ for contributions from TSN Austria and ESWD.

### III. OPERATIONAL PROCEDURE

The operational forecaster at ZAMG is now able to use reliable weather information from TSN in near real time to evaluate and verify warnings during severe weather periods and to conduct adjustments to warnings.

Joint case studies in cooperation with all partners can be swiftly released to the public.

### IV. ACKNOWLEDGMENTS