Report on the Met Office Tornado Watch Trial

Summary of the Trial

The trial was held for a period of three months, starting on the 27th August 2008. The trial consisted of a Forecast map and text, issued each day at approx 0600. The forecast was available to a number of users via a password protected part of the Met Office Website.

Those who took part in the trial included a group from the BBC; these were a mixture of BBC employees and Met Office staff. There were also responders from several areas of the UK: Birmingham, London, Cardiff and the South coast. We decided to include the south coast because of the high number of water spouts and tornadoes reported in that area. The users from the responder community were a mixture of Local Authority and Fire Service.

Weather during the Trial

The weather throughout the trial was generally unsettled with several periods of weather that were favourable for tornadic activity. It is felt that there were sufficient numbers of occasions to allow us to assess the accuracy of such a forecasting service.

Accuracy of the Forecasts

There were 4 occasions when tornadoes were reported during the trial. This would seem to be about average but it is impossible to say there were no other occasions. On two occasions there was a low risk forecast in the area and no damage was reported by the sighted tornadoes. One occasion when localised damage was reported: trees damaged and tiles stripped from roofs there was a medium risk issued for the area. On the other occasion when again localised damage was reported, no forecast had been issued. There were 30 occasions when a low or medium risk was issued and 3 occasions when tornadoes were reported. Although this may appear to be a reasonable level of accuracy it should be noted that the forecast were issued for Government Office regions and so covered many counties.

Feedback from Responders

Generally feedback was positive. The responders found the forecasts useful, clear and easy to understand. However there was a fairly consistent feeling that it was no more than interesting and because it is impossible to forecast accurately for a specific location means that it is impossible to make any kind of operational response.
Many of the responders would be interested in such a service but only if it helped them to take specific actions, e.g. warn the public. They suggested that the Met Office continue research into this area and perhaps in the future launch a more accurate service.

On Saturday the 8th November in addition to the Tornado Watch the risk was considered to be high enough to include in the PWS forecasts and also on that day’s media broadcast. There were reports of a tornado affecting North Lincolnshire that evening with localised damage.

Several responders commented that this was very useful and recommended that rather than a formal daily Tornado Watch that we should instead use the media and the Met Office website when the risk was sufficiently high to warrant it.

There was no feeling that the public would be alarmed but a general impression that they could become cynical because the large number of false alarms.

Public Consultation

From the limited consultation carried out it can be concluded that the public think that having tornado information is useful and that there is no evidence that they are overly alarmed by this. The feedback about having specific tornado warnings has not been taken into account because of the lack of explanation about the uncertainty of tornadoes during the consultation.

As confirmed by the recent inclusion of tornado information in live forecasts and broadcasts as long as the information is given in a measured and responsible way the public are accepting of it.

Before tornado information becomes more freely available some low level education for the public should be considered.

Recommendation

The recommendation is that the Tornado Watch should not continue as we are unable to warn with sufficient accuracy or be geographically specific enough to allow either the public or the responder community to take definite action. However the diagnostics which have been developed should be used daily by forecasters and when there is an indication of a high enough risk that should be mentioned in the PWS forecasts on the website and also in media broadcasts.