PWS Support to Sports Scotland Avalanche Information Service (SAIS)

Background

The Public Weather Service (PWS) provides a coherent range of weather information and weather-related warnings that enable the UK public, and professional bodies as appropriate, to make informed decisions in their day-to-day activities, to optimise or mitigate against the impact of the weather, and to contribute to the protection of life, property and basic infrastructure.

Recognising the significance and severity of weather which occurs on a frequent basis within the UK hills and mountains and its potential consequences for public safety, the PWS provides a number of services to enhance the safety and enjoyment of outdoor activities in these mountain regions. These services include the National Severe Weather Warning Service (NSWWS), Mountain Area Forecasts, National Park Forecast service (which will be enhanced by October 2013) and weather forecasts to support an assessment of the risk of avalanches in some areas in Scotland.

The scope of this paper is restricted to the last item in which the PWS currently provides a daily weather forecast to the Sports Scotland Avalanche Information Service (SAIS) Team throughout the Winter season. In conjunction with observational information, obtained through in-situ snow-pit tests, SAIS provides a daily assessment of avalanche risk across five regions of Scotland. This information is provided by the SAIS web site which is linked to from the PWS mountain forecast pages.

Following further discussion with the SAIS team a number of improvements to the current service are proposed.

Proposed Improvements to Service

1. **Improvements to the daily weather forecast supplied to SAIS**

   Following discussion with the SAIS Co-ordinator, changes to the daily forecasts are proposed to include more forecast information which is displayed graphically and a forecaster commentary which adds further value.

   The following benefits are linked to this approach:

   - **Consistency** - ensures the forecasts are created from the same information that underpins other public weather services
   - **Value** – the proposed new graphical forecasts provide the SAIS team with numerical values for key weather information at the summits of mountains (e.g. temperature, wind speed, freezing level, web bulb freezing level). The forecaster adds value to the forecast information through interpretation and understanding its application to the objective of avalanche assessment.
   - **Efficiency** – the forecaster is no longer creating a bespoke forecast but supporting content which is used across all digital channels. Modest cost savings in production time are likely.
• **Scalable** - with a number of high profile, tragic avalanches occurring in recent years, the SAIS Team may extend their avalanche assessments to include parts of the far North West Highlands including Torridon. The new approach is more scalable to support an extension to service.

2. **Display of accompanying video content**

The SAIS Team considers human behaviour as being a dominating factor influencing exposure to avalanche risk. An accurate assessment of weather and avalanche risk will have limited value to a user if they decide to continue with a course of action that is strongly motivated by other factors, e.g. fulfilling a route that may have been scheduled weeks ago even though the assessed risk of avalanche is high.

Other options for communicating the risks in a more visually compelling, graphical manner have been reviewed with the SAIS Team. Construction of a video library is proposed with each video clip graphically illustrating what conditions are really like in the mountains on a daily basis in Winter.

The proposed improvement to the service will involve generating a video library (undertaken by SAIS) and making the most representative video clips available via the Met Office web site.

The following benefits are expected:-

- **Public Safety** – PWS mountain area forecasts are well used by the public and mountain professionals. Adding supporting video clips that graphically illustrate the conditions observed will enable the public to make more informed choices. High profile and tragic avalanches during Winter 2012/13 (Glencoe and Cairngorms) has elevated the profile of avalanche risk with the UK public and these video clips will both support public understanding of mountain forecasts and its relevance to enhancing public safety.

- **Increased Reach** – Video content is increasingly expected by the public to help with understanding and the interpretation of information. Video content makes web sites more ‘sticky’, increasing user dwell time and aid rankings in search engines.

- **Partnerships** – strengthens the excellent working relationship between the Met Office and the SAIS Team

No additional cost to the PWS is expected in supporting this work.