ABSTRACT

Climate in North-Central Italy in winter 2014-2015

by ARCIS work team

After the exceptional precipitation events and the decidedly mild temperatures recorded in previous winter, winter 2014-15 was characterised by generally normal conditions, though showing strong variability throughout the season and meteorological conditions that locally resulted in events that had a major impact on infrastructures, roads and tourism, among others.

In this article, the ArCIS workteam offers a detailed description of the climate anomalies observed using the data recorded by the weather monitoring stations of the regional meteorological services of North-Central Italy.

Snowcover evolution in the Alps in the 2014-2015 winter season

M. Valt and P. Cianfarra

Though being characterised, mainly in western and central Alps, by an amount of fresh snow typical of an average winter season, winter 2014-2015 stood out for lower than average snowcover heigths in all sectors, and particularly in eastern Alps. Snowcover duration, in the December-April period, was 2 weeks lower at maximum altitudes and even more than 6 weeks lower below 1,600 m of height. Winter was mild, with temperatures of up +1.8 °C above the average from December to April, in addition to being characterised by strong winds.

November was characterised by heavy snowfalls at high altitudes, then scarce snowfalls were recorded until mid-January, with many windy days. In the second half of January heavy snowfalls were recorded in the Alps as a whole. February was the snowiest month of winter, determining the most critical avalanche conditions on the whole alpine chain. March was characterised by fast slow melting and, late in the month, by major snowfalls and intense avalanche activity. April was initially characterised by mild temperatures, with snowfalls in the last ten days. Snowcover ablation mainly occurred in the first twenty days of May, while fresher weather at the end of the month helped preserve residual seasonal snowcover in shadowy areas beyond 2,200 m of height.

The most frequently observed avalanche danger degree was 2-moderate, except for degree 3-considerable in Valle d'Aosta.

In the western sector, characterised by heavier snowfalls, degree 3-considerable was more frequently observed than in the eastern sector. There were relatively few days with danger degree 4-high, and no day with rating 5-very high was recorded. There were numerous avalanche victims during the last winter, and for the thirtieth season in 20 years, a high number of avalanche casualties were recorded in a winter season with scarce snow.

SNOWFALLS AND AVALANCHES
Major snow and weather events, land problems and avalanche accidents in winter 2014-2015

by AINEVA avalanche services

This article describes, for the various territories, the most significant snow and weather events of the 2014-2015 winter season, and the main consequences these events had on territory. These reports, drawn up by the various regional and provincial avalanche services that are part of AINEVA, do not certainly exhaustively describe the trend of winter season at a local level, but represent a targeted "focus" whose aim is to underline the most evident problems taking place at local level and which had a major impact on economic-production activities and the civil defence organisation. Considering that the last

winter season was characterised by many avalanche accidents, the article also describes some particularly noteworthy accidents that took place in the single regions and autonomous provinces.

AVALANCHE ACCIDENTS
An overview of avalanche accidents in Italy in the 2014-2015 season

S. Pivot

In the 2014-2015 winter season 30 avalanche casualties were recorded in Italy, a number decidedly exceeding the historical 30-year average, amounting to around 19 casualties. The high number of casualties should be related to the strong winds that blew over the alpine chain throughout winter on one side, and the critical snowcover structure on the other. What is more, some accidents had serious consequences because of so-called "morphological traps". Of the 30 casualties, 18 (60%) were practicing ski mountaineering, 9 (30%) off-track skiing, 2 (7%) climbing and 1 (3%) snowshoeing. Similarly to what happened in France and Switzerland, in a number of accidents several people were simultaneously buried, which made self-rescue or organised rescue operations more complicated. As already underlined in the 2013-2014 season, in this season too, it turned out that several people involved in accidents still were not fitted with the three basic self-rescue tools: ARVA transceiver, shovel and probe. Once again, a problem of interaction among groups emerged, as well as scarce propensity to help each other in the event of an accident, which leads experts to suppose that not only juridical, but also sociological reasons lie behind this kind of behaviour.