

Harmonisation of weather types classifications in Europe, COST 733.

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The objective of COST 733 is to achieve general numerical methods for assessing, comparing, and classifying typical weather situations in European regions. The main motivation for establishing such a COST action is that many environmental applications need simple descriptions of actual atmospheric conditions, weather types (classifications) being able to provide such information in an easy manner. A large number of weather and circulation classification methods are applied in Europe today. In spite of this there are still some open questions since most weather type classifications are 1) adapted to a specific region, and not necessarily easy to transfer to another region, 2) often adapted to a specific (environmental) problem, with its spatial and temporal scale specifically fitted to that purpose. Today no common reference weather type classification for European regions exists, implying a need to develop objective criteria for comparing different weather type classifications.

The Action will deliver a comparable standard of weather-type-based investigations within Europe. It is expected on one hand that in many applications it will no longer be necessary to develop new specific individual classifications. On the other hand, the availability of the results of this Action may stimulate further research on weather type classifications, thus contributing to a better understanding of the role of the atmospheric circulation in climate variability and change. The COST733 Action will also contribute to a better understanding of relationships between atmospheric circulation conditions and response climate and environmental variables.

The objectives of the action will be met through an ambitious science plan including an inventory and inter-comparison of existing classification methods. Requirements of different applications on the weather type classifications will be identified. Features of existing methods are planned to be combined and amended for the design of a new weather type classification that can be applied to any region (of a certain scale) in Europe for as many purposes as possible. Also the identification of new methodologies and/or methods for comparison and assessment of weather type classifications will be emphasized.

The Action was approved by COST CSO 15/03/2005 and entered into force:

22/06/2005. The action runs for five years and will end 12/09/2010. Twenty countries has (so far) signed the MoU, meaning that the action forms a network of around 40 scientists from national meteorological services as well as from universities and research institutes all over Europe.