



MID-LATITUDE CYCLONES WITH TROPICAL ORIGINS: lessons from two historical case studies.

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Interest in storm and hurricane activity has grown over recent years, their changing incidence being seen, rightly or wrongly, as a gauge of 'global warming'. Yet such judgements can be confidently offered only on the basis of a reliable long period of record that provides more informative perspective on the events of the past few decades. This presentation is concerned with two examples of hurricane activity, both of which make valuable use of historical source material but provide different lessons for climatologists. The first example is from 1680 and demonstrates the value of historical source material in reconstructing events from the distant past and suggests a way forward in developing and improving the long-term storm chronologies. The other, based on the analogous events of 1842 and 2005, offers a convincing demonstration of the need to call upon such comprehensive long-term chronologies in order to avoid making mistaken and unintentionally ill-informed observations on the seeming idiosyncrasies of recent climatic variation.

The first example, from August 1680, reconstructs the trajectory and development of an Atlantic tropical cyclone, and draws upon a notable variety of documentary sources ranging from ships' logbooks, official and unofficial correspondence and some early examples of instrumental data. It serves as a model of how such sources, which remain largely unexploited, can be called upon to provide important climatic information. It allows also for the reconstruction the tropical and extratropical phases of the cyclone's trajectory and its possible impact over the UK. The second example, which compares hurricane Vince (2005) with an earlier but overlooked analogue from 1842, demonstrates the caution with which recent events should be interpreted and the need to take as long-term view as possible. Hurricane Vince, which moved directly from the eastern Atlantic towards Iberia, was widely proclaimed as a unique event and a consequence of global warming. Yet a careful search of the historical record provided an almost perfect analogue from 1842 and in doing so offered a salutary warning of our need for caution and for a clearer picture of the past.

This presentation reviews both examples and discusses their implications in terms of the possibility of improving the cyclone chronology and, thereby, of assisting in our understanding of present-day events.

References

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