

The Destructive Effects of Tropical Cyclones

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Mexico is one of the countries in the world which is most affected by tropical cyclones, and it is perhaps the only region which can feel the effects of cyclones arising from two completely independent cyclone producing areas: the North Atlantic and the North Eastern Pacific. With this in mind, Mexico should have a great tradition in the handling of the emergencies which are caused by these atmospheric phenomena, but season after season we find that there is still much to do.

There are many possible reasons for this lack of a generalised tradition of the adequate handling of the emergencies provoked by tropical cyclones. One of these is the low frequency with which these macrostorms produce significant damage at any one specific point of the national territory, this can be said to be in the order of once in every 10 to 25 years. Characteristics of our modern society such as population mobility, demographic growth and movement of labour prevent the learning which occurs when a cyclone affects a region from becoming deep-rooted in the local population. Social pressures which tend to influence budgetary provisions and government actions are primarily concerned with matters of higher recurrence frequency, accepting destiny or fate as the explanation of disasters caused by these storms. Another reason that can be given for this deficiency is the fact that the meteorological community is relatively small in comparison with the total population, and in terms of the professional population in other areas. Little of the work done by that community is available for educational, diffusion and organisational activities concerned with tropical cyclones. Given the characteristics of damage caused: widely distrib-

uted geographically, through population sectors and through economic activity, in order to deal with this type of emergency adequately, it is necessary that all levels which may be affected should have a hurricane culture which is consequent with the importance of this phenomena in the lives of many Mexicans.

The aim of this manual entitled *The Destructive Effects of Tropical Cyclones* is precisely to offer a source of specific and concise information on tropical cyclones which would be difficult to find in any other publication in Spanish, or indeed in any other language. The manual in itself does not contain anything new, with the exception of the specific experiences of the author and his collaborators, it aims simply to bring together information which would be found in various different publications of different disciplines and which, therefore, would not be a suitable means of widely informing the interested audience.

The Destructive Effects of Tropical Cyclones is directed at all those who during the process of planning for, the occurrence or the recovery from the onslaught of a tropical cyclone take some part in the disaster prevention process or the protection of the civil population, its goods and its production resources. This includes an enormous number of people, as the civil prevention and protection decisions and actions are taken by many bodies and people on different scales. More specifically, this manual is aimed at civil protection and disaster forecasting officers, both governmental and civil, on a federal, a state and municipal level, together with public-sector or private companies and professional or social associations connected with hydro-meteorological natural disasters.

Obviously, this publication cannot hope to be a complete manual on actions to be taken in any of the above sectors, even in the restricted case of tropical cyclones. What it is though is a presentation of useful information so that each sector can produce a manual of procedures which are pertinent to each specific field and area of responsibility.

This manual's philosophy is eminently conceptual, in other words, the object is to give a complete overview of the fundamental concepts associated with tropical cyclones and their effects on the population and on human activity. Optimum decisions and actions should consider the phenomenon on its true scale, and not only with regards to its immediate effects in the here and now. The learning process from direct experiences is meagre if one does not have a panoramic view. This publication's aim is precisely to give this panoramic view.

However, since the conceptual focus has been emphasised, many potential readers may be led to believe that the material will not be useful in the specific tasks which they have to carry out. Nothing could be further from the truth. Although after reading the article the reader will not be able to forecast the trajectory and intensity of a certain cyclone, or design a sheltering bay for fishing boats, the reader will however have an understanding of which factors should be considered, and will gain an appreciation of how other professionals in other fields carry out their functions. Civil protection activities necessarily imply interaction with many specialists, if all of them have a common large-scale vision then this can only help make the decisions and actions consistent one with the other. ■