

Storms of 1887

STORMS OF 1887

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Introduction.

The present report describes results of the author's continuing effort of improving historical knowledge of Atlantic tropical cyclones which is planned to be used in determining their frequency variation during the second half of the nineteenth century and early this century. The present report covers the year 1887. The documentation in Neumann et al. (1993) has already covered that year, but the study of individual storms corresponding to it has been undertaken in order to check the tracks for correctness in the light of information contained in other sources and to document the evolution of new storms to be added to the ones in their above mentioned publication.

Sources and methods.

Sources that were used in checking the tracks in Neumann et al. (1993) were available cyclone lists such as those published in Tannehill (1938) and Dunn and Miller (1960), books and articles about storms such as Mitchell (1924), Sarasola (1928), and Martinez-Fortun (1942) and meteorological information contained in the Monthly Weather Review and in sections of marine and general news published in newspapers, primarily in The New York Times and The Times (London). Each storm in Neumann et al. (1993) for the year 1887 was checked against the above information sources and appropriate modifications were proposed for the tracks which were found to be in error. The sources above also allowed the author of this study to document some new storm cases which, of course, are not shown in Neumann et al. (1993). It should be emphasized that information in the above sources was crucial for documenting the new storms.

Tracks of newly documented storms were combined with those for previously known storms after having applied to them the proposed corrections along their tracks, and the storms were finally numbered in chronological order in accordance to the day they were first detected. Tracks are displayed on maps in Fig. 1. Estimated 7 A.M. (E.S.T.) positions were denoted by black dots along the tracks, with adjacent numbers indicating the day of the month. The month was indicated only for the starting day of each track and, in addition, for the first day of the month when the track was found to continue from one month to the next. The storm number was indicated by a large size number near the beginning of the track. Tracks for tropical storms were denoted by dashed lines and tracks for hurricanes were denoted by solid lines.

Results.

The detailed study of the 1887 storms is presented in the

Appendix. The appendix presents 19 storms on a one-by-one basis. These storms are listed in Table 1. Two of these 19 storms (10.5 percent) are new cases which are not included in Neumann et al. (1993). In regard to the number of known cases in Neumann et al. (1993) for which a track modification was proposed, Table 1 shows that some changes along the track were implemented for 12 out of the 17 storms displayed in Neumann et al. (1993) for the year 1887. This means that, as a result of the present study, 70.6 percent of the tracks for the above mentioned 17 storms was not found to be entirely correct.

It should be stated that the 19 storms of 1887 made of that year a very active one as far as the number of storms recorded in a single year is concerned. The occurrence of those 19 storms was found to have set a record for a year in the second half of the nineteenth century, and such a record was found to have remained valid until 1933 when, according to Neumann et al. (1993), 21 storms formed in the Atlantic- Caribbean Sea- Gulf of Mexico area.

It should be stated, in addition, that the year 1887 showed 2 storms to have formed in May and 2 storms to have formed in December, which appears to be a unique event in the history of Atlantic storms.

Table 1
List of Storms
(1887)

| List No. | Ident. # & Date (s) | New Case | Track Modified |
|-----------------|----------------------------------|-----------------|-----------------------|
| 1 | Storm 1, 1887 (May 15-19) | yes | --- |
| 2 | Storm 2, 1887 (May 17-21) | no | yes |
| 3 | Storm 3, 1887 (Jun. 11-13) | yes | --- |
| 4 | Storm 4, 1887 (Jul. 20-28) | no | yes |
| 5 | Storm 5, 1887 (Jul. 30- Aug. 7) | no | no |
| 6 | Storm 6, 1887 (Aug. 15-23) | no | yes |
| 7 | Storm 7, 1887 (Aug. 18-27) | no | yes |
| 8 | Storm 8, 1887 (Sept. 1-6) | no | yes |
| 9 | Storm 9, 1887 (Sept. 11-22) | no | yes |
| 10 | Storm 10, 1887 (Sept. 15-18) | no | yes |
| 11 | Storm 11, 1887 (Oct. 6-8) | no | no |
| 12 | Storm 12, 1887 (Oct. 8-9) | no | yes |
| 13 | Storm 13, 1887 (Oct. 9-21) | no | yes |
| 14 | Storm 14, 1887 (Oct. 10-12) | no | yes |
| 15 | Storm 15, 1887 (Oct. 16-19) | no | no |
| 16 | Storm 16, 1887 (Oct. 29-Nov. 6) | no | yes |
| 17 | Storm 17, 1887 (Nov. 27- Dec. 4) | no | yes |
| 18 | Storm 18, 1887 (Dec. 4-10) | no | no |
| 19 | Storm 19, 1887 (Dec. 7-12) | no | no |

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Caption

Fig. 1 Storms of 1887. Estimated positions shown by black dots along the tracks are for 7 A.M. (E.S.T.). Tracks for tropical storms are denoted by dashed lines and tracks for hurricanes are denoted by solid lines.