

Storms of 1901 - 1904

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Introduction.

The present report describes results of the author's continuing effort of improving current historical knowledge of the Atlantic tropical cyclones of the past. The improved knowledge is planned to be used in determining more accurately the frequency variation of these storms during the second half of the nineteenth century and early this century. The present report covers the period 1901-1904. The storm documentation in Neumann et al. (1993) has already covered this period, but the study of individual storms corresponding to those years was undertaken by the present author in order to check storm tracks for correctness in the light of information contained in other sources and, at the same time, trying to identify new storms to be added to the ones in the 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), Dunn and Miller (1960), Mitchell (1924) and Garcia-Bonnelly (1958), books, reports and articles about storms such as Sarasola (1928), Salivia (1972), Tucker (1982), Martinez-Fortun (1942), Weather Bureau (1902, 1903, 1904, 1905) and meteorological information contained in the Monthly Weather Review and the Historical Weather Maps and in sections of marine and general news published in newspapers such as The New York Times, The Times (London), The Morning Tribune (Tampa), The Miami Metropolis, The Daily Miami Metropolis and Diario de la Marina (Havana, Cuba). Each storm in Neumann et al. (1993) for the period 1901-1904 was checked against the above information sources and appropriate modifications were implemented for the tracks which were found to be in error. The above sources were also used in trying to identify new storm and some weather systems which seem to have had a possibility of having reached tropical storm intensity.

For each year, if new storms were documented, their tracks were combined with those of previously known storms after having applied the necessary corrections to the latter ones; then the storms were numbered in chronological order in accordance to the date they were first detected. Storm tracks for 1901-1904 are displayed on maps in Figs. 1 to 4. Estimated 7 A.M. (E.S.T.) positions were denoted by black dots along the tracks, the adjacent numbers indicating the day of the month. The month was indicated for only the starting day of each track and, in addition, for the first day of the month when a track was found to continue from one month to the next. Portions of the tracks corresponding to tropical storm intensity or to hurricane intensity were denoted by dashed lines or solid lines, respectively; in addition, the depression

(dissipation) stage was denoted by asterisks and the extratropical stage was denoted by crosses. The above symbolism was made to be consistent with the one used in Neumann et al. (1993) for the years 1899-1950.

Results.

The detailed study of the storms for the period 1901-1904 is presented in the Appendix. The appendix presents 32 storms on a one-by-one basis. These storms are listed in Table 1. Note in the table that three new storms were found for the above mentioned period: 2 in 1901 and 1 in 1903. More importantly, note that some changes along the tracks were implemented for 28 out of the 29 previously known storms displayed in Neumann et al. (1993). This means that, as a result of this study, 96.6 percent of the tracks were not found to be entirely correct and required modifications which ranged from one minor adjustment or two to the preparation of a new track. This percentage was found to represent a very large increase with respect to the last three decades of the nineteenth century and was obviously associated with the use of Historical Weather Maps as a new source for checking storm tracks starting in 1899.

Table 1
List of Storms
(1901-1904)

List No.	Ident. # & Date (s)	New Case	Track Modified
1	Storm 1, 1901 (Jun. 11 - 15)	No	Yes
2	Storm 2, 1901 (Jul. 1 - 10)	No	Yes
3	Storm 3, 1901 (Jul. 4 - 13)	No	Yes
4	Storm 4, 1901 (Aug. 2 - 18)	No	Yes
5	Storm 5, 1901 (Aug. 18 - 22)	Yes	---
6	Storm 6, 1901 (Aug. 29 - Sept. 11)	No	Yes
7	Storm 7, 1901 (Sept. 9 - 19)	No	Yes
8	Storm 8, 1901 (Sept. 12 - 17)	No	No
9	Storm 9, 1901 (Sept. 21 - Oct. 2)	No	Yes
10	Storm 10, 1901 (Oct. 5- 14)	No	Yes
11	Storm 11, 1901 (Oct. 15 - 18)	Yes	---
12	Storm 12, 1901 (Oct. 30 - Nov. 6)	No	Yes
13	Storm 1, 1902 (Jun. 12 - 17)	No	Yes
14	Storm 2, 1902 (Jun. 21 - 28)	No	Yes
15	Storm 3, 1902 (Sept. 16 - 25)	No	Yes
16	Storm 4, 1902 (Oct. 5 - 13)	No	Yes
17	Storm 5, 1902 (Nov. 1 - 6)	No	Yes
18	Storm 1, 1903 (Jul. 21 - 26)	No	Yes
19	Storm 2, 1903 (Aug. 6 - 16)	No	Yes
20	Storm 3, 1903 (Sept. 9 - 16)	No	Yes
21	Storm 4, 1903 (Sept. 12 - 17)	No	Yes
22	Storm 5, 1903 (Sept. 19 - 26)	No	Yes
23	Storm 6, 1903 (Sept. 26 - 30)	No	Yes
24	Storm 7, 1903 (Oct. 1 - 10)	No	Yes
25	Storm 8, 1903 (Oct. 6 - 10)	No	Yes
26	Storm 9, 1903 (Oct. 21 - 27)	Yes	---
27	Storm 10, 1903 (Nov. 17 - 25)	No	Yes
28	Storm 1, 1904 (Jun. 10 - 14)	No	Yes
29	Storm 2, 1904 (Sept. 8 - 15)	No	Yes
30	Storm 3, 1904 (Oct. 12 - 20)	No	Yes
31	Storm 4, 1904 (Oct. 19 - 25)	No	Yes
32	Storm 5, 1904 (Oct. 31 - Nov. 6)	No	Yes

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Captions.

- Fig. 1. Storms of 1901. Estimated positions shown by black dots along the track are for 7 A.M. (E.S.T.). Dashed lines denote portions of the tracks along which storms attained tropical storm status and solid lines denote portions of the tracks showing hurricane intensity. Depression (dissipation) stages are denoted by asterisks and extratropical stages are denoted by crosses.
- Fig. 2. Same as Fig. 1 but for 1902.
- Fig. 3. Same as Fig. 1 but for 1903.
- Fig. 4. Same as Fig. 1 but for 1904.