YEAR 1853

Tannehill (1938) has listed four storm cases for 1853 and an additional case, which is not in Tannehill's book, has been presented by Garcia-Bonnelly (1958). The author of this study has documented four new cases, bringing to 9 the total number of 1853 storms. The author's contribution represents an 80 percent increase in the number of known storms for this year.

Storm 1, 1953 (Aug. 5).

This is a newly documented storm and its existence was based on limited information published in newspapers. The New-York Daily Times, Aug. 15, 1853, p.8, col.6, indicated that the bark "W.B. Bowen" foundered in a gale near latitude 33.5 N., longitude 69.2 W. The accident is said to have occurred on August 5 and that, due to the very heavy weather prevailing, the captain and crew could not save anything. Based on the above information, the author decided to place Storm 1, 1853 at 33.5 degrees North, 69 degrees West on August 5 (Fig. 4).

Storm 2, 1853 (Aug. 10).

Tannehill (1938) is the only author who has mentioned this storm. The storm is said to have occurred at Barbados on August 10. The Times (London) did not make any reference to it in the mails coming from the West Indies that were published on Sept. 1, 1853, p.7, col.7. The Barbados mail dateline was August 11, or one day after the alleged storm date. Storm 2, 1853 should have been a very weak one; otherwise it should have been included in the August 11 mail from Barbados and, most likely, the mail ship would not have left that island as scheduled. The author of this study has decided to place the storm near Barbados as shown in Fig. 4.

Storm 3, 1853 (Aug. 30- Sept. 10).

This is a well-known hurricane mentioned by Tannehill (1938), Garriott (1900), Dunn and Miller (1960) and Ludlum (1963). Tannehill (1938) stated that this hurricane is the first one traced back to the Cape Verde Islands, off the African coast, by William Redfield. Tannehill (1938) showed a track for this storm, extending from south of the Cape Verde Islands on August 30 to south of Newfoundland on September 9 and showing the storm offshore Cape Hatteras on September 7.

The track for Storm 3, 1853 displayed in Fig. 4 is mostly independent from Tannehill's track and it has been prepared by the author of this study based on marine information published in newspapers, particularly in The New-York Daily Times and in The Times (London).

The bark "Warwak", coming to New York from Callao, experienced a hurricane at latitude 16 degrees North, longitude 51 degrees West (The New-York Daily Times, Sept. 26, 1853, p.8, col.5). No date was given but, according to the track in Fig. 4, the bark should have encountered the hurricane on September 2. The above is the easternmost report the author has been able to get about the storm. The Times (London), Oct.3, 1853, p.9, col.2, stated that the bark "Hermann" met a hurricane near 20 degrees North, 56 degrees West on September 3 and that the lowest pressure reading was 27.30 inches. This information allowed one to establish that Storm 3, 1853 was a very

intense hurricane at that time. According to a recent study by Fernandez-Partagas (1993), this low pressure value appeared to have set a record for an Atlantic hurricane which lasted for many years.

According to The New-York Daily Times, Oct. 29, 1853, p.8, col.4, the brig "Ocean Bird" encountered a severe hurricane from N.E. to S.W. at latitude 27 degrees North, longitude 69.3 degrees West on September 4, which lasted for 3 hours. This report appears to be in error because the hurricane did not reach the location indicated by the brig until early September 5 and, in addition, 3 hours appear to be quite a short time for the hurricane to have lasted. Therefore, this report has been discarded.

Abundant marine information is available about the hurricane, starting on September 6 and continuing to the 10th. The following extracted reports from vessels that were struck by Storm 3, 1853 were helpful in determining the storm track over the Atlantic off the North American continent: 1) Bark "Regina Grant". Lat. 29.3 N., long. 71.2 W. Experienced a hurricane from N.E. to S. on Sept. 6 (The New-York Daily Times, Sept. 15, 1853, p.8, col.6). 2) Bark "Syria". Lat. 35.8 N., long. 73.5 W. Experienced a hurricane from E.S.E. to W.N.W. on Sept. 7 (The New-York Daily Times, Sept. 17, 1853, p.8, col.5). 3) Brig "G.W. Lawrence". Lat. 33 N., long. 75 W. Had an E.N.E. hurricane on Sept. 7 (The New-York Daily Times, Sept. 21, 1853, p.8, col.6). 4) Bark "Clarissa". Lat. 37 N., long. 70 W. Hurricane starting from S.S.E. at 8 P.M. Sept. 7 and ending from S.W. at 4 A.M. Sept.8 (The New-York Daily Times, Sept. 19, 1853, p.8, col.5). Schr. "Sagesta". Lat. 34.7 N., long. 72.5 W. Had a S.S.E. to N.N.W. hurricane on Sept. 7 (The New-York Daily Times, Sept. 19, 1853, p.8, col.5). 6) Brig "B.L.Swan". Lat. 37 N., long. 71 W. Had a hurricane during the night of Sept. (7 to) 8, wind commenced from E.S.E. going around to N.W. (The New-York Daily Times, Sept. 15, 1853, p.8, col.6). 7) Brig "Olivier". Lat. 36.6 N., long. 69 W. Had a S.W. to N.E. hurricane on Sept. 8 (The New-York Daily Times, Sept. 27, 1853, p.8, col.6). 8) Brig "Abner Taylor". Lat. 39.5 N., long. 64.3 W. Experienced a S. to N.W. hurricane on Sept. 8 (The New-York Daily Times, Sept. 12, 1853, p.8, col.6). 9) Bark "Bess Grant". Lat. 37.5 N., long. 63 W. Had a hurricane from N.N.E. on Sept. 8 (The New-York Daily Times, Sept. 27, 1853, p.8, col.6). 10) Ship "Ionica" (near long. 60 W., no latitude given). Had a hurricane on Sept. 9 (The New-York Daily Times, Sept. 29, 1853, p.8, col.6). 11) The "Tuscarona", at lat. 41 N., long. 57 W., had a violent hurricane from all points of the compass (The Times, London, Sept. 27, 1853, p.10, col.5). 12) Bark "Independence". Lat. 40.3 N., long. 50.5 W. Experienced a hurricane from S.W. to N.W. on Sept. 9 (The New-York Daily Times, Sept. 29, 1853, p.8, col.6). 13) Ship "London". Lat. 42.5 N., long. 45 W. Experienced a severe hurricane which lasted for half an hour (?) on Sept. 10 (The New-York Daily Times, Sept. 26, 1853, p.8, col.5). 14) Ship "Assissi". Lat. 46.5 N, long. 42.5 W. Had a heavy gale from S.E. to W. on Sept. 10 (The New-York Daily Times, Oct. 10, 1853, p.8, col.5). 15) Ship "Robert Kelly". Lat. 46.3 N., long. 41 W. Had a hurricane from S.S.W. to N. on Sept. 10 (The New-York Daily Times, Oct. 1, 1853, p.8, col.6).

The author of this study decided to stop his track for Storm 3, 1853 on September 10 because the marine information about this storm was found to have dramatically decreased after that day. However, the storm should have continued moving eastward across the northern Atlantic while gradually becoming extratropical. The strong N.N.W. gale experienced by the brig "Neptune" near latitude 50 N., long. 26 W. on Sept. 13 (The Times, London, Sept. 30, 1853, p.10, col.5) was probably associated with the extratropical stage of Storm 3, 1853.

Storm 4, 1853 (Sept. 8-10).

This is a storm whose existence had not been documented before. The author found this storm when he was examining the previous case. Storm 4, 1853 was found to be located about 1000 miles to the east of Storm 3, 1853 on Sept. 8. A report from the ship "Gilbert Gallatin" allowed one to document the new storm. According to The New-York Daily Times, Sept. 23, 1853, p.8, col.6, the ship "Gilbert Gallatin" experienced a severe hurricane from S.S.W. to N.W. at lat. 38 N., long. 48 W. on September 8, lasting for four hours. Based on this information, Storm 4, 1853 was estimated in the vicinity of 39 degrees North, 49 degrees West at 7 A.M. Sept.8. The storm could be followed for two days as it moved roughly to the northeast across the Atlantic, and its track is shown in Fig. 4.

The bark "Juno" encountered the hurricane on Sept. 9. Although no position was given for the encounter, the bark was spoken with at lat. 41 N., long. 42 W. on September 13 (The Times, London, Sept. 30, 1853, p.10, col.5). Also the ship " Western Empire" had a gale from S.E. to S. at lat. 46 N., long. 36 W. on Sept. 9 (The New-York Daily Times, Oct. 22, 1853, p.8, col.4 and 5). The following information was available for September 10: 1) The bark "Barbara Ann" suffered damages in a hurricane at lat. 48 N., long. 29 W. on Sept. 10 (The Times, London, Sept. 26, 1853, p.11, col.4). 2) Ship "Harvester Queen". Lat. 47.2 N., long. 29.5 W. Had a severe hurricane from S.S.W. to N.W. on Sept. 10; the hurricane ran for 12 hours (The New-York Daily Times, Oct. 12, 1853, p.8, col.5). 3) Ship "Chesapeake". Lat. 47.2 N., long. 27.5 W. Severe hurricane from S.E. to N. on Sept. 10 (The New-York Daily Times, Oct. 12, 1853, p.8, col.5). 4) Ship "Metropolis". Lat. 47 N., long. 26 W. Gale on Sept. 10; wind blew from S.W. to N.W. (The New-York Daily Times, Oct. 22, 1853, p.8, col.4 and 5). 5) Ship "Josephine" encountered a hurricane at lat. 47 N., long. 24 W. on Sept. 10 (The New-York Daily Times, Oct. 21, 1853, Oct. 21, 1853, p.8, col.6). All of the above marine reports were taken in consideration in determining how Storm 4, 1853 evolved in the northern Atlantic on Sept. 9-10.

Storm 5, 1853 (Sept. 21).

This storm is also a newly documented one. The existence of this storm was inferred from the following information published in The Times, London, Nov. 4, 1853, p.10, col.5: The "Elize" and the "Crichton" arrived off Veracruz on Sept. 21 and stood out to sea because of a heavy norther. Very strong winds from the north are known to blow in Veracruz after cold front passages in winter; however, Sept. 21 is too early to attribute this condition to a cold front. It is also known that, because of the funneling effect induced by the mountains of the Sierra Madre Oriental, tropical storms in the southwestern Gulf of Mexico also tend to produce strong northerly winds in Veracruz even when they are located some distance to the east or northeast of that place. Therefore, the heavy norther reported in The Times (London) should have been associated with a tropical storm and the author of this study decided to place Storm 5, 1853 at 20 degrees North, 95 degrees West on Sept. 21 (Fig. 4).

Storm 6, 1853 (Sept. 26-30).

Tannehill (1938) and Garriott (1900) have mentioned this storm. Tannehill (1938) has listed the storm as having occurred in the Atlantic on Sept. 27; however, he has also shown a two-day track for Sept. 26-27. Tannehill's track shows the storm near lat. 29 N., long. 63 W. on Sept. 26 and

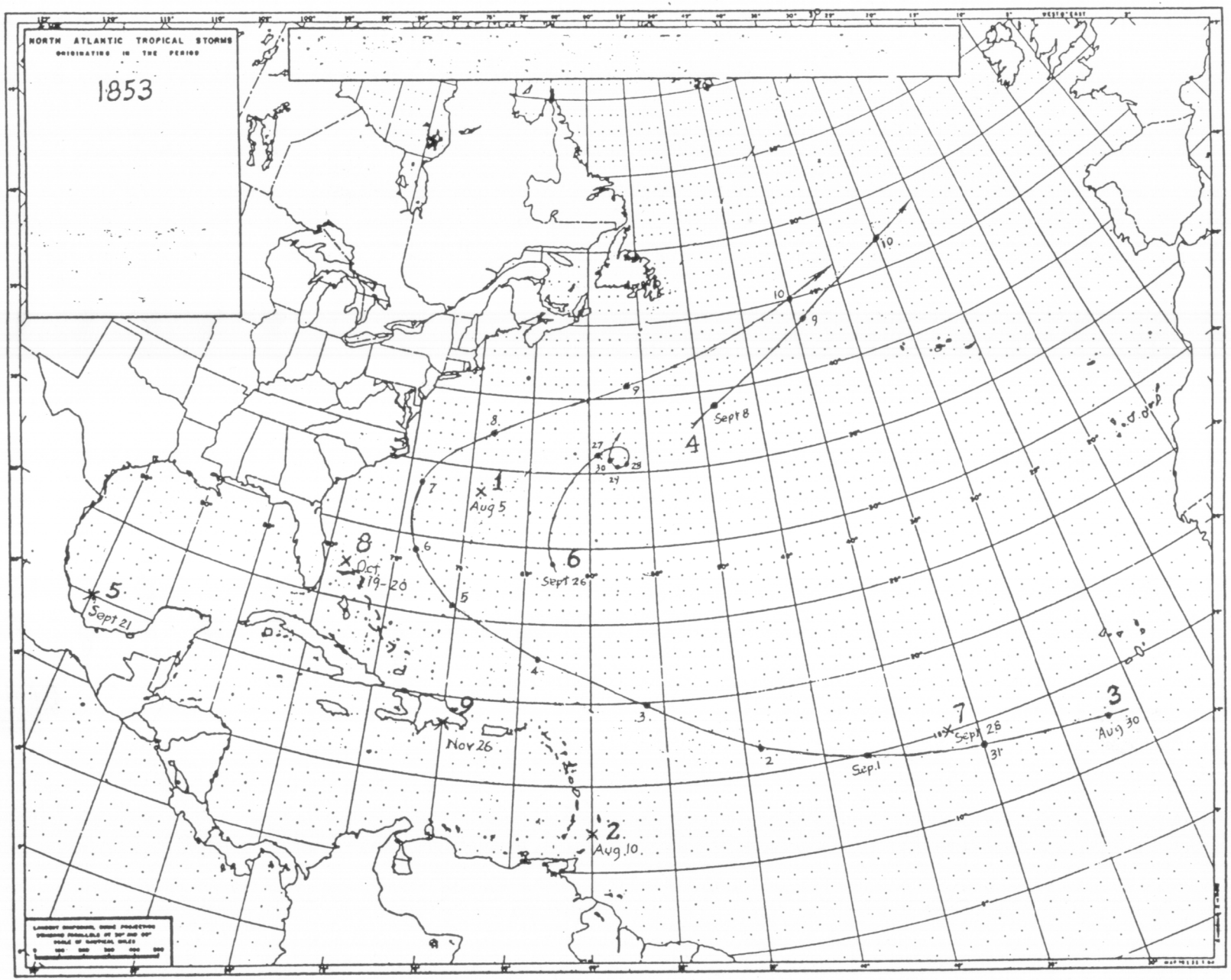
NORTH ATLANTIC TROPICAL STORMS
ORIGINATING IN THE PERIOD
1853
1 Aug 5
2 Aug 10
3 Aug 30
4 Sept 8
5 Sept 21
6 Sept 26
7 Sept 26
8 Oct 19-20
9 Nov 26
Sep 1

Fig. 4

near lat. 35 N., long. 59 W. on Sept. 27. On the other hand, Garriott (1900) has placed the storm at lat. 37 19 N., long. 58 56 W. on Sept. 27.

According to newspaper reports, Storm 6, 1853 attained hurricane intensity: 1) Brig "Samuel and Edward". Lat. 34 40 N., long. 56 20 W. Had a hurricane from S. to N. on Sept. 28 (The New-York Daily Times, Oct. 17, 1853, p.8, col.6). 2) Schr. "Werada". Lat. 35 N., long. 59 W. Experienced a hurricane from N.W. on Sept. 30 (The New-York Daily Times, Oct. 19, 1853, p.8, col.4).

Based upon all the information above, the author of this study has produced the Storm 6, 1853 track shown in Fig. 4. The Sept. 26 position has been adopted from Tannehill (1938) and the Sept. 27 position has practically splitted the difference betweeen Tannehill's and Garriott's positions for that day. The loop track over the period Sept. 27-30 has been introduced to satisfy the marine reports in The New-York Daily Times which have clearly shown that the storm did not continue moving northeastward after Sept. 27. The author's track for Storm 6, 1853 appears to be the first one in history which has shown a loopy motion for a tropical cyclone.

Storm 7, 1853 (Sept. 28).

Tannehill (1938) and Garriott (1900) has mentioned this storm. Tannehill (1938) has listed it as having occurred in the Atlantic on Sept. 28; however, he has shown a short one-day track positioning the storm near lat. 15 N., long. 36 W. on Sept. 29 (not on Sept. 28). Garriott (1900) has mentioned the storm as having occurred at lat. 15 N., long. 37 10 W. on Sept. 28. If both Garriott's Sept. 28 position and Tannehill's Sept. 29 position were accepted, an eastward drift of the storm would have occurred from September 28 to September 29. Such a motion would have been against all expectation for a storm at that low latitude in September. Therefore, and also encouraged by the fact that Tannehill (1938) has listed the storm as having occurred on September 28 (not on September 29), the author of this study discarded the Sept. 29 position along Tannehill's track. The decision was then made to place Storm 7, 1853 at 15 degrees North, 37 degrees West, which is in agreement with Garriott (1900) and with Tannehill's listing. This location is displayed in Fig. 4.

Storm 8, 1853 (Oct. 19-20).

This storm has not been mentioned before. The following information published in The New-York Daily Times has been useful in documenting Storm 8, 1853: 1) Bark "Edward", coming to New York from Savannah, had a hurricane on Oct. 19 lasting for at least 12 hours (The New-York Daily Times, Oct. 27, 1953, p.8, col.5 and 6). 2) Bark "Virginia", coming to New York from Havana, had very heavy gales from Oct. 15 to 21 (The New-York Daily Times, Oct. 27, 1853, p.8, col.5 and 6). 3) Ship "Vickshuing", coming to New York from Havana, had a heavy gale from N.W. off Cape Florida on Oct. 19 (The New-York Daily Times, Oct. 28, 1853, p.8, col.6). 4) Bark "W.H. Brodie" was in a gale at lat. 29 N., long. 79.8 W. on Sept 20 when the vessel picked up the crew from Schr. "Petite Lizzie" which capsized in the Oct. 19 hurricane (The New-York Daily Times, Oct. 28, 1853, p.8, col.6). 5) Brig "Wm. T. Stafford" (from Cardenas in 22 days). On the 14th, the wind commenced to blow heavily from N.E. and continued until the 20th. On Oct. 20 the vessel was boarded by a sea and had the wind not shifted to the S.S.W. the brig had gone ashore the Florida banks (The New-York Daily Times, Oct. 31, 1853, p.8, col.6). 6) Bark "Princess Charlotte"

(from Mosquito Territory in 40 days). Hurricane from N.E. to S.W. at lat. 29 36 N., long. 77 28 W. on Oct. 19 (The New-York Daily Times, Nov. 1, 1853, p.8, col.6). 7) Schr. "Sally Barger" reported that the brig " Grand Turk" was dismasted in a gale on Oct. 20 (The New-York Daily Times, Nov. 2, 1853, p.8, col.6). 8) Brig "Friendship" reported that the brig "Melissa Anna" was wrecked in the Oct. 19 hurricane from N.E. (The New-York Daily Times, Nov. 4, 1853, p.8, col.5).

Indications are that Storm 8, 1853 reached hurricane intensity. A track for the storm could not be achieved on the basis of the information above, but there is no question that the storm was located off the Florida east coast on October 19 and 20. Because no definite motion could be determined, the author decided to keep the storm stationary near 27.5 degrees North, 78.5 degrees West over the period Oct. 19-20, 1853 (Fig. 4).

It should be mentioned that Storm 8, 1853 was not the only severe weather affecting the U.S. east coast in October 1853. A second storm, this one of extratropical origin, affected the U.S. coast a few days later. The ship "Vickshuing", which had met Storm 8, 1853 off Cape Florida on October 19, also met this second storm off the Virginia Capes. According to The New-York Daily Times, Oct. 28, 1853, p.8, col.6, the "Vickshuing", at lat. 36 38 North, long. 75 54 West, had fresh gales from the S. on October 24, which suddenly shifted to the N.W. at 4 P.M. and increased to a perfect hurricane that lasted for 12 hours. Barometer: 29.40 inches.

Storm 9, 1853 (Nov. 26).

This storm has been mentioned by Garcia-Bonnelly (1958), who has placed it in the Dominican Republic on November 26, 1853. Following an old Hispanic tradition of naming storms after saints, Garcia-Bonnelly (1958) has referred to this storm as "San Narciso", but it happens to be that San Narciso's day is celebrated by the Catholic Church on October 29 and not on November 26. This mistake in naming the storm after San Narciso and the fact that this storm case has not been mentioned by any other author cast some suspicion on the storm. However, due to the lack of evidence that the storm did not exist, the author of this study has decided to keep it on record and to place it near Santo Domingo, Dominican Republic, on November 26, 1853 (Fig. 4).