

= Tropical Storm Ana (2003) =

Tropical Storm Ana was the only tropical cyclone on record in the North Atlantic basin to exist in the month of April . The first tropical cyclone of the 2003 season , it developed as a subtropical cyclone from a non @-@ tropical low on April 20 to the west of Bermuda . It tracked east @-@ southeastward and organized , and on April 21 it transitioned into a tropical cyclone with peak winds of 60 mph (95 km / h) . Tropical Storm Ana turned east @-@ northeastward , steadily weakening due to wind shear and an approaching cold front , and on April 24 it became an extratropical cyclone . The storm brushed Bermuda with light rain , and the remnants produced precipitation in the Azores and the United Kingdom . Swells generated by the storm capsized a boat along the Florida coastline , causing two fatalities .

= = Meteorological history = =

A non @-@ tropical low pressure area developed about 240 miles (390 km) south @-@ southwest of Bermuda on April 18 through the interaction of an upper @-@ level trough and a surface frontal trough . The surface trough , which extended from the gale center to Hispaniola , brought a plume of moisture northward from the Caribbean Sea into the circulation , which caused heavy rainfall in Puerto Rico . The non @-@ tropical low tracked generally northward , with a ridge to its east and west , and on April 19 the system began producing sporadic convection near its center ; early that day , satellite imagery indicated the presence of a tight inner core of winds . After turning to the northwest , it looped southeastward and gradually became separated from the surface frontal system , due to the deepening of the upper @-@ level trough over the system . Convection became better organized over the center , and it is estimated the system developed into Subtropical Storm Ana early on April 20 while located about 250 miles (400 km) west of Bermuda . Operationally , the subtropical cyclone was not classified by the National Hurricane Center until 21 hours later .

The subtropical storm tracked east @-@ southeastward and continued to organize , and by late on April 20 an upper @-@ level warm core was present over the system . Based on its organization , Ana is estimated to have become a tropical storm by 0000 UTC on April 21 . Upon becoming a tropical storm , Ana attained a peak intensity of 60 mph (95 km / h) , which was based on estimates from the Hebert @-@ Poteat technique and data from QuikSCAT . Shortly thereafter , it made its closest point of approach to Bermuda , when it passed about 130 miles (210 km) southwest of the island . Operationally , the cyclone was first classified by the National Hurricane Center around this time , when it was considered a subtropical cyclone . Strong upper @-@ level wind shear removed much of the convection , though a small area of thunderstorms persisted near the center . The storm became completely separated from the upper @-@ level system , and the cyclone re @-@ organized , developing an eye feature late on April 21 . Embedded within the flow of a cyclone to its north , Ana continued eastward , and early on April 22 the wind shear again removed the convection from the center . Convection waxed and waned throughout the day , and by April 23 the circulation had deteriorated in organization . After turning to the northeast , the circulation center merged with an approaching cold front on April 24 , and Tropical Storm Ana completed the transition into an extratropical cyclone . The extratropical storm accelerated east @-@ northeastward before losing its identity within the frontal zone on April 27 southeast of the Azores .

= = Impact , records , and naming = =

Prior to the development of Ana , the government of Bermuda issued a gale warning for the island . Upon its classification by the National Hurricane Center , a tropical storm warning was issued for Bermuda . Meandering near the island for several days while developing , the storm dropped 2 @-@ 63 inches (67 mm) of precipitation in a six @-@ day period at the Bermuda International Airport . Winds on the island did not reach tropical storm force . Swells from the storm impacted the coast of Florida . The combination of the swells and an outgoing tide caused a boat to capsize in Jupiter Inlet

on April 20 ; two of its occupants drowned , and the other two were rescued . As an extratropical storm , the remnants of Ana dropped 0 @. @ 87 inches (22 mm) of precipitation in the city of Ponta Delgada in the Azores . Moisture from the remnants of Ana also produced beneficial rainfall in the United Kingdom . Two ships recorded tropical storm force winds in association with Ana ; the Atlantic Forest recorded 51 mph (82 km / h) and a pressure of 998 mbar on April 22 , and the Rosa Delmas reported winds of 47 mph (76 km / h) on April 23 .

On April 20 , Ana became the second subtropical cyclone on record in the Atlantic basin in the month of April , after a subtropical storm in 1992 . After attaining tropical characteristics , it became the first tropical storm on record in the month of April and was among the earliest forming tropical or subtropical cyclone in the Atlantic basin .