Names of hurricanes is not as simple as A,B,C

I usually post a version of the following later in the course, i.e. when we are discussing hurricanes and Ahrens et al chapter 14. However, the topic is “hot” now because Dorian is approaching the Maritimes and Newfoundland. We will see this evolves this weekend.

On average, the Atlantic hurricane season produces 12 named storms, of which six become hurricanes, including three major hurricanes. Conditions are now more favorable for above-normal hurricane activity since El Niño conditions have become “neutral”. Seven named storms have formed so far this year and the peak months of the hurricane season, August through October, are now underway.

The practice of naming hurricanes and other tropical storms dates back several centuries in the Caribbean where a particular saint's day on which the hurricane occurred was assigned. Of course, hurricanes typically move and affect different areas and islands so the same storm could have different names.

Clement Wragge, an eccentric Australian meteorologist gets the credit for assigning a series of names to individual hurricanes (known as cyclones in his part of the world) about 120 years ago. His original idea was to name them after the letters of the Greek alphabet but instead, he used the names of figures from Polynesian mythology, historical figures such as Xerxes and Hannibal and then the names of politicians. He vented his hostility toward public figures by assigned their names to nasty storms. His custom received attention around the world in 1902 when "Conroy”, a national politician he despised, became associated with a tropical cyclone that caused considerable damage and hardship in Queensland, Australia.

His funding was reduced soon after. He left the Australian weather service and conducted research on various islands in the South Pacific, then in India and finally in New Zealand.After Wragge's retirement, the practice of naming tropical cyclones would cease for four decades.

Assigning names became popular in World War II in the Pacific Ocean, when meteorologists used names of their girlfriends, mother, or a local character of note. Alphabetical order was commonly used by the end of this war. The first storm of the season began with the letter A, the second with B, and so on. This avoided confusion if two or more tropical storms were present at the same time.

In 1949 a Category 4 hurricane named #2 struck Florida when President Harry Truman was on a visit there. It was christened "Hurricane Harry".

In the early 1950s, it became accepted that some order was desirable and in 1953 it was agreed internationally to give hurricanes female names in alphabetical order from the beginning of each year. These names for hurricanes were chosen under the aegis of the World Meteorological Organisation by local representative committees, whose members are from countries in the regions usually affected by tropical storms.

In 1979, this rather chauvinist approach was changed to allow hurricanes to be alternately male and female names. Six semi-permanent lists of names are now used; each set is repeated six years. The current list for 2019 was used in 2012 and will appear again in 2026. The list for each year allows for 21 storms, the letters Q, U, X, Y and Z being omitted because the choice of names would be limited. And if a season is particularly stormy, with more than 21 named storms (tropical storms and hurricanes, then the Greek alphabet - Alpha, Beta, Gamma and so on - could be used to name extra storms.

When a hurricane has had major impacts its name may be "retired" which, strictly speaking, means that it will not be re-used for at least 10 years. (Dorian almost certainly be retired from the list.) This is intended to facilitate historical references, legal actions, insurance claims and perhaps to avoid bad memories. Hurricane Gilbert (1988), Hugo (1989) and Mitch, which caused such havoc in Central America in 1998, have all been superannuated. Hazel, responsible for 1200 fatalities in the Caribbean, North Carolina and Toronto (81 deaths) in 1954, has never been reassigned.

The Atlantic hurricane season in 2005: records for numbers, fatalities in recent decades and damage costs.

Hurricane season in the Atlantic officially begins on June 1 and ends on November 30. These dates almost always contain the Atlantic hurricane season. Occasionally late May will feature an eager tropical storm and rarely a late hurricane will persist into December.

This hurricane season a decade ago is remembered for Hurricane Katrina, which devastated New Orleans and the Gulf Coast, killing at least 1,833 people. (Several hundred persons were still reported missing in association with Katrina two years later.) But Katrina was only one of a record-breaking 28 named tropical storms in this disastrous year. In all, these storms caused 4,000 deaths and almost $200 billion in damage in the United States, Mexico, Central America and the Caribbean.

It began with tropical storms (TS) in June, continued with major hurricanes Dennis and Emily in July, five more TS and a hurricane and then Katrina which destroyed large parts of New Orleans in late August. Five more hurricanes took place in September and October featured two TS and three hurricanes. These included Rita a few weeks after Katrina, which prompted massive evacuation of the Houston area and contributed directly and indirectly to about 100 deaths. In early October, Stan was associated with disastrous inland flooding in areas of Guatemala and Mexico. Some estimates of the death toll were as high as 2000.

Wilma exhausted the available alphabet and, more important, set a record for the lowest central pressure ever recorded in a western hemisphere hurricane.

The Greek alphabet, first suggested by Clement Wragge, came into play. Alpha was first Atlantic tropical storm ever to be named from the Greek alphabet. It was followed by Beta, Gamma, Delta and Epsilon which ushered in December. Beta qualified as a major hurricane and did damage to Nicaragua. Tropical Storm Zeta literally finished the year and persisted until January 6, 2006.

This remarkable season featured 28 tropical storms and 15 of these became hurricanes (maximum 1-minute winds of at least 64 knots/119 km/h) breaking the record of 12 set in 1969. Seven hurricanes became major hurricanes (winds at least 96 knots/178 km/h). Four of these hurricanes reached category 5 strength (maximum winds greater than 135 knots/249 km/h), the first time this has been observed in one season. A record 11 storms formed that year in the Gulf of Mexico.

Katrina made landfall as a Category 3 hurricane near New Orleans. More than 1,800 people died in New Orleans and areas of the Gulf Coast. Katrina was the costliest natural disaster in US. (Source: NOAA)

The photo and additional information is available from **ANNUAL SUMMARY: Atlantic Hurricane Season of 2005**
JOHN L. BEVEN II, LIXION A. AVILA, ERIC S. BLAKE, DANIEL P. BROWN, JAMES L. FRANKLIN, RICHARD D. KNABB, RICHARD J. PASCH, JAMIE R. RHOME, AND STACY R. STEWART (2008)
http://www.aoml.noaa.gov/hrd/hurdat/mwr_pdf/2005.pdf

Hurricane Dorian

Dorian is tied for second for maximum winds in the Atlantic. Dorian's 296 kmh/185 mph sustained winds are second only to Hurricane Allen (1980) in the record that dates to the 1850s. Allen topped out at 304 kmh/190 mph sustained. Hurricane Dorian's 296 kmh/185 mph sustained winds put the storm in company with Hurricane Wilma (2005), Hurricane Gilbert (1988) and the Labor Day Hurricane of 1935. Wind gusts are estimated to be as strong as 352 kmh/220 mph.