SPEArTC Dataset in Matlab Format

- SPEArTC is now available in Matlab format as a structured array
- After loading the dataset (Matlab command: load speartc_January_2014)
- The array will be available under the variable TC in a <1x1117> structure (there are 1117 tracks in the data set from 1840-2013)
- The TC structured array has the following field variables
- For i=1:1117 the (TC(i).fields are as follows:
  - TC(i).serial_number [unique TC serial number as decoded below]
  - TC(i).season [the 1969/70 season would be noted as 1970]
  - TC(i).number [storm number within a season]
  - TC(i).name [name of the storm]
  - TC(i).time(1:6) [a TC position point’s time as follows as 6 distinct sub-fields]
    - year
    - month
    - day
    - hour
    - minute
    - second
  - TC(i).pos [position – latitude and longitude at that point]
  - TC(i).speed (maximum sustained wind speed at that point)
  - TC(i).press (central pressure at that point)
  - TC(i).maxspd (maximum wind speed over the entire life of the TC)
  - TC(i).len (number of points in a TC’s track)

SPEArTC TC Serial Number Decoding:

NNNNJJJHYYXXX
- NNNN: year that storm has an initial data point
- JJJ: Julian Day that the storm has an initial data point
- H: Hemisphere (all TCs in the SPEArTC dataset will be “S”)
- YY: 2-digit latitude of first data point for a TC
- XXX: 3-digit longitude of first data point for a TC