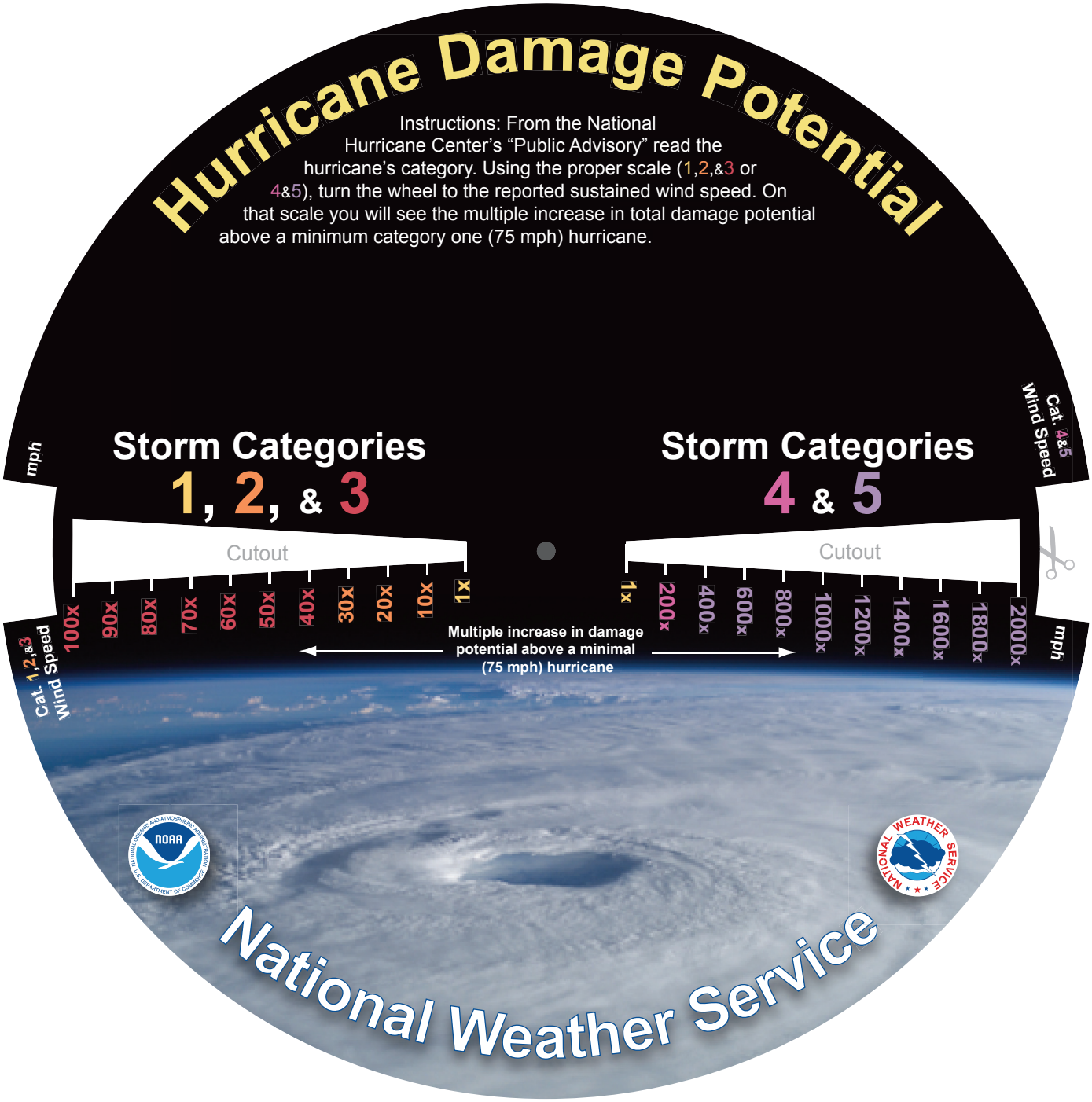
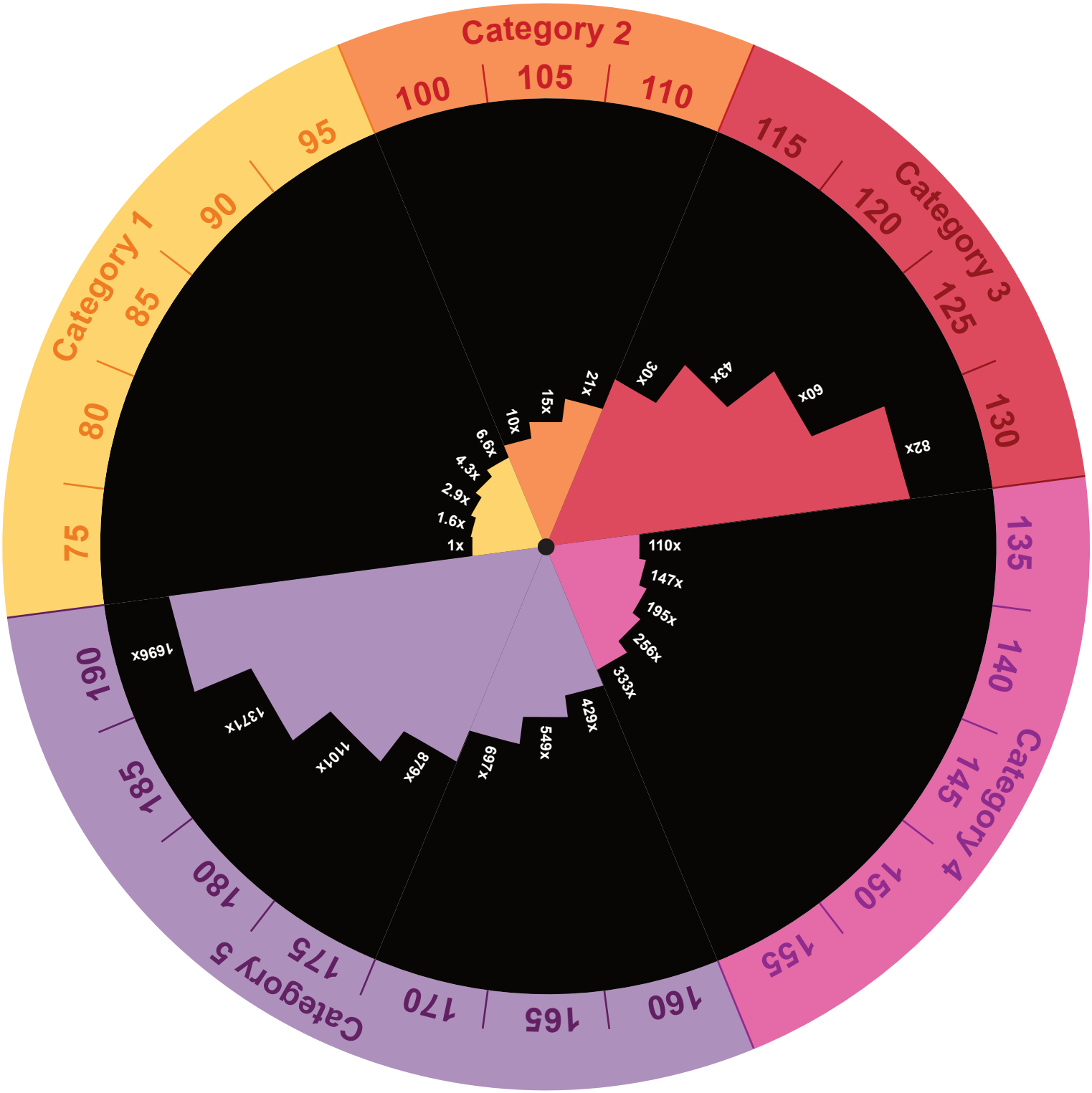


Hurricane Damage Potential. Cut along wheel edge and the two sections marked "cutout." Make a small hole in the center of both wheels. Attach wheels together using a brass fastener. From the National Hurricane Center's "Public Advisory" read the hurricane's category. Using the proper scale (1,2,&3 *or* 4&5), turn the wheel to the reported sustained wind speed. On that scale you will see the multiple increase in the total damage potential above a minimum category one (75 mph) hurricane. More information about the damage potential is located at...**http://www.srh.weather.gov/srh/jetstream/tropics/tc_windscale_max.htm**

There are over 35 lesson plans in the National Weather Service education website JetStream - An Online School for Weather, a free resource at **www.srh.weather.gov**.


Category 1
75
80
85
90
95
Category 2
100
105
110
Category 3
115
120
125
130
Category 4
135
140
145
150
155
Category 5
160
165
170
175
180
185
190
1x
1.6x
2.9x
4.3x
6.6x
10x
15x
21x
30x
43x
60x
82x
110x
147x
195x
256x
333x
429x
549x
697x
879x
1101x
1371x
1696x

Hurricane Potential Damage

A hurricane's damage potential is obviously related to the storm's intensity. Yet, the increase in damage a storm produces is not linear with increasing wind speed. Rather, the potential damage increase is logarithmic. This means that small increases in wind can produce dramatically increasing damage.

A study cited in *Weather and Climate Extremes in a Changing Climate* from the **U.S. Climate Change Science Program** stated that hurricane damage does not increase with the square of the wind speed, as kinetic energy does. Rather, damage appears to rise faster on the order of the eighth power of maximum wind speed.

This **Hurricane Potential Damage** wheel shows that eighth power increase in potential damage. The multiplier values for each wind speed indicate increases in potential total damage based upon a 75 mph (minimum category one) hurricane.

A word of caution: A 75 mph hurricane will cause damage. The multiplier values for each wind speed are above what could occur at 75 mph.

Learn more about tropical cyclones at JetStream, An Online School for Weather
www.srh.noaa.gov/jetstream

Get the latest tropical weather forecasts from the National Weather Service at
www.srh.noaa.gov/tropicalwx
or
www.nhc.noaa.gov