

HAZARDOUS WEATHER AWARENESS WEEK CONTINUES THROUGH FRIDAY TODAY IS MARINE WEATHER HAZARDS AND RIP CURRENTS DAY

THE FOLLOWING HAZARDOUS WEATHER TOPICS REMAIN TO BE DISCUSSED...

-TODAY	MARINE HAZARDS AND RIP CURRENTS
-WEDNESDAY	TORNADOES AND SEVERE THUNDERSTORMS
-THURSDAY	HURRICANES AND FLOODING
-FRIDAY	TEMPERATURE EXTREMES AND WILD FIRES

A VARIETY OF MARINE WEATHER HAZARDS OCCUR ALONG FLORIDA'S GULF COAST. THE MOST COMMON ARE WATERSPOUTS, THUNDERSTORMS, AND DANGEROUS RIP CURRENTS DUE TO STRONG WINDS BEHIND A COLD FRONT OR ASSOCIATED WITH TROPICAL CYCLONES.

...WATERSPOUTS...

WATERSPOUTS ARE MUCH LIKE TORNADOES OVER WATER...BUT ARE USUALLY WEAKER. IN GENERAL, THERE ARE TWO CATEGORIES OF WATERSPOUTS: TORNADIC AND FAIR WEATHER. FAIR WEATHER SPOUTS ARE NORMALLY LESS DANGEROUS THAN TORNADIC SPOUTS, AND ARE NOT ASSOCIATED WITH SEVERE THUNDERSTORMS. THESE SPOUTS FORM ALONG THE DARK BASES OF DEVELOPING CUMULUS CLOUDS AND TEND TO BE VERY NARROW AND WEAK.

TORNADIC SPOUTS ARE MORE COMMON TO THE FLORIDA GULF COAST, AND TEND TO FALL INTO THREE CATEGORIES OF THEIR OWN: SUPERCELLULAR, MORNING ROTATORS, AND AFTERNOON SPIN-UPS.

SUPERCELLULAR SPOUTS HAVE THE SAME CHARACTERISTICS AS A TORNADO ON LAND. THEY ARE MOST COMMONLY SEEN ALONG OR JUST AHEAD OF SQUALL LINES ASSOCIATED WITH STRONG COLD FRONTS FROM LATE FALL THROUGH SPRING. THESE ARE THE MOST DANGEROUS SPOUTS AND CAN BE VERY DESTRUCTIVE AND LONG LIVED.

MORNING ROTATORS OCCUR NORMALLY BETWEEN JUNE AND SEPTEMBER MOST OFTEN BETWEEN 5 AND 9 AM. THERE ARE SEVERAL SUMMER DAYS WHEN THE AVERAGE LOW LEVEL WIND IS ONSHORE WHILE WINDS AT THE SURFACE ON LAND ARE LIGHT OFFSHORE OR CALM. CONVERGENCE OF THESE WINDS PRODUCES A BROKEN LINE OF ROTATING SHOWERS AND THUNDERSTORMS, A FEW OF WHICH PRODUCE SMALL BUT STILL POTENTIALLY DANGEROUS WATERSPOUTS. THESE WATER SPOUTS WILL RARELY MOVE ONTO ADJACENT BEACHES CAUSING LOCALIZED DAMAGE BEFORE DISSIPATING.

AFTERNOON SPIN-UPS OCCUR WITH THE ONSET OF THE GULF COAST SEA BREEZE THUNDERSTORMS, NORMALLY DURING THE EARLY AFTERNOON HOURS. THEY ARE MOST COMMON IN TAMPA BAY AND CHARLOTTE HARBOR WHERE BOUNDARIES COLLIDE FROM SEVERAL DIRECTIONS...INDUCING A ROTATING UPDRAFT. THESE WATER SPOUTS TEND TO BE A LITTLE STRONGER THAN THE MORNING ROTATORS, AND HAVE A GREATER CHANCE OF REACHING LAND AREAS BEFORE DISSIPATING.

...THUNDERSTORMS...

A MARINER IS NEVER SAFE FROM THUNDERSTORMS. CLOUD TO WATER LIGHTNING IS THE MOST COMMON HAZARD. BRIEF WIND GUSTS TO GALE FORCE ARE ALSO POSSIBLE, PRODUCING A ROUGH AND CONFUSED SEA STATE IN A MATTER OF MOMENTS. TORRENTIAL RAINS CAN REDUCE VISIBILITY TO NEAR ZERO, AND EVEN HAIL IS POSSIBLE.

THE MOST DANGEROUS THUNDERSTORM EVENTS ARE FROM EASTWARD-MOVING SQUALL LINES ASSOCIATED WITH COLD FRONTS FROM FALL THROUGH SPRING. IN THE SUMMER, SEA BREEZE THUNDERSTORMS OFTEN MOVE BACK OVER THE GULF WATERS DURING THE LATE AFTERNOON AND EVENING HOURS.

...FRONTAL SYSTEM WINDS...

MARINE HAZARDS CAN DEVELOP EVEN WHEN SKIES ARE RAIN-FREE. STRONG COLD FRONTS CAN BE FOLLOWED BY GUSTY NORTHWESTERLY WINDS, OFTEN REACHING TO NEAR GALE FORCE. SEAS CAN BUILD RAPIDLY, GOING FROM NEAR CALM TO 4 TO 6 FEET AND ROUGH IN A SHORT PERIOD OF TIME. SEAS CAN REACH 12 FEET OR MORE WITHIN THE FIRST 12 HOURS OF THE ONSET OF STRONG WINDS. WAVES CAN BUILD TO 3 TO 5 FEET IN EXPOSED AREAS OF TAMPA BAY AND CHARLOTTE HARBOR, ESPECIALLY WITH A STRONG NORTHEASTERLY WIND.

...RIP CURRENTS...

PREVAILING EASTERLY FLOW ACROSS THE FLORIDA PENINSULA DURING MUCH OF THE YEAR REDUCES THE NUMBER OF RIP CURRENT EPISODES ON THE SUNCOAST. HOWEVER, FOR THE TIMES WHEN MODERATE TO STRONG LOW PRESSURE SYSTEMS DEVELOP IN THE CENTRAL OR NORTHERN GULF, INCLUDING TROPICAL CYCLONES, RIP CURRENTS WILL DEVELOP.

THESE LOW PRESSURE SYSTEMS PROVIDE A PERSISTENT WEST OR SOUTHWEST FLOW RUNNING NEARLY PERPENDICULAR TO THE SHORELINE. A RIP CURRENT WILL FORM WHEN WATER DRIVEN BY THE ONSHORE FLOW PASSES OVER A SANDBAR, CAUSING THE WATER TO PILE UP. THE EXCESS WATER EVENTUALLY RETURNS SEAWARD, FLOWING THROUGH LOW AREAS IN THE SANDBAR OR A CHANNEL BETWEEN SANDBARS.

RIP CURRENTS ARE OFTEN DEADLY TO THOSE CAUGHT UNAWARE OR UNPREPARED. A BASIC UNDERSTANDING OF HOW TO RESPOND IF CAUGHT IN A RIP CURRENT CAN LIKELY SAVE YOUR LIFE.

...SOME SAFETY RULES AND OTHER INFORMATION...

...FOR WATERSPOUTS AND THUNDERSTORMS...

-HAVE AN ESCAPE PLAN IN MIND. NEVER LET THUNDERSTORMS CUT OFF YOUR ROUTE BACK TO LAND.

-IF A THUNDERSTORM THREATENS...BE SURE EVERYONE ABOARD IS WEARING A LIFE JACKET. SMALL BOATS CAN QUICKLY OVERTURN IN GUSTY WINDS.

-IF CAUGHT IN A THUNDERSTORM...GO BELOW DECK IF POSSIBLE, AND STAY AWAY FROM MASTS OR UNGROUNDED METAL OBJECTS.

-LISTEN TO NOAA WEATHER RADIO FOR WARNING INFORMATION.

...FOR FRONTAL SYSTEM WINDS...

-CHECK FORECASTS WELL AHEAD OF TIME.

-KNOW THE LIMITATIONS OF YOUR BOAT. IF SMALL CRAFT ADVISORIES OR GALE WARNINGS ARE ISSUED...YOU MAY WISH TO POSTPONE TRAVEL.

-HAVE A VHF MARINE BAND RADIO ON BOARD.

...FOR RIP CURRENTS...

-KNOW YOUR SWIMMING ABILITY IN SEA WATERS AND CURRENTS.

-ALWAYS SWIM AT GUARDED BEACHES.

-IF CAUGHT IN A RIP CURRENT, SIGNAL FOR HELP FIRST. REMAIN CALM, THEN SWIM PARALLEL TO THE SHORE UNTIL YOU ARE WELL OUT OF THE CURRENT. WHEN OUT OF THE CURRENT, SWIM DIAGONALLY TOWARD SHORE.

FOR FURTHER INFORMATION ABOUT MARINE HAZARDS AND RIP CURRENTS, PLEASE VISIT THE FOLLOWING WEBSITES:

[HTTP://WWW.RIPCURRENTS.NOAA.GOV](http://www.ripcurrents.noaa.gov)

[HTTP://WWW.FLORIDADISASTER.ORG/KIDS/INDEX2.HTM](http://www.floridadisaster.org/kids/index2.htm)