



## DESTRUCTIVE WEATHER READINESS



1. **General**. Storms are a potential threat to all military installations. Adequate and timely warning, coupled with prompt and effective actions by commanders, will minimize loss of life and damage to property.

2. **Major Storm Systems**. Storms of this type generally affect a wide area and have a life expectancy of days rather than hours.

a. **Tropical Depression**. Weather associated with a tropical cyclone system with wind speeds up to 33 knots (38 mph).

b. **Tropical Storm**. Weather associated with a tropical cyclone system with wind speeds 34 to 63 knots (39 to 73 mph).

c. **Hurricane**. A tropical cyclone associated with high winds, usually 64 knots (74 mph) or greater and torrential rain.

d. **Winter storm**. Various conditions of snow accumulation, sleet, freezing rain, or a combination of all three that will affect roadways and bridges.

### 3. **Local Storm Systems**

a. **Local Wind Warnings**. Local wind warnings are only to notify of potentially hazardous winds greater than 20 knots (23 mph - sustained or gust) when they are believed to be of sufficient force to warrant special precautions.

b. **Small Craft Warnings**. Winds are steady and of sufficient force to cause turbulence and high seas. Wind range from 18 to 33 knots (21-37 mph).

c. **Gale Warnings**. Winds are steady and of sufficient force to cause heavy turbulence and high seas. Winds are 34 to 47 knots (39 to 54 mph).

d. **Storm Warnings**. Storms made up of low-pressure systems other than tropical origin, with winds of 48 knots (55 mph) or greater.

e. **Thunderstorms**. These are small scale storms produced by cumulonimbus clouds accompanied by lightning and thunder. These storms may develop within sight and may not have a destructive appearance until shortly before passing overhead. Thunderstorms may be accompanied by heavy rainfall, lightning strikes, near zero visibility and high wind gusts of less than 50 knots and/or hail less than three quarters of an inch at the surface.

f. **Severe Thunderstorm**. A thunderstorm accompanied by winds gusts of 50 knots or greater and/or hail three quarters of an inch or greater at the surface

g. **Tornadoes**. A tornado is defined as a violently rotating column of air, generally spawned from thunderstorm clouds and touching the ground. Maximum winds may reach 300 miles per hour.

h. **Winter Storms**. Winter storms may bring any combination or all of the following: freezing temperatures, wind, sleet, freezing rain and the accumulation of ice and/or snow. Wind gusts will be less than 50 knots and/or hail less than three quarters of an inch at the surface

i. **Severe Winter Storm**. A winter storm accompanied by winds gusts of 50 knots or greater and/or hail three quarters of an inch or greater at the surface

j. **Flooding**. Prolonged periods of rain may cause rivers and tributary networks to overflow. The gradual rise in water levels may take may take hours or days depending on rainfall amounts. Flash floods are very rapidly developing flood stages that can occur almost instantly with sudden, intense rainfall, or breaking of a dam, dike or levee.

k. **Hurricanes**. A hurricane's destructive power is determined by the interaction of storm surge, wind, tide level, and precipitation. To make comparisons easier and to make the predicted hazards of a hurricane more uniform, the National Oceanic and Atmospheric Administration (NOAA) has developed the Saffir/Simpson Hurricane Damage Potential Scale. Storms can strengthen and weaken and be assigned to different categories at different times in their evolution.

**The scale categories are defined as:**

(1) **Category One**. Sustained winds of 64-82 knots (**74-95 mph**) or storm surge of 4-5 feet above normal sea state. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery and trees. Some coastal flooding and minor pier damage.

(2) **Category Two**. Sustained winds of 83-95 knots (**96-110 mph**) or storm surge of 6-8 feet above normal sea state. Some roofing material, door and window damage to buildings. Considerable damage to vegetation, mobile homes and piers. Coastal and low-lying escape routes flood 2-4 hours before the arrival of the eye of the storm. Small craft in unprotected anchorages will likely break moorings.

(3) **Category Three (Major)**. Sustained winds of 96-113 knots (**111-130 mph**) or storm surge 9-12 feet above the normal sea state. Some structural damage to small residences and utility buildings. Mobile homes are destroyed. Flooding near the coast destroys smaller structures damaged by floating debris. Terrain continuously lower than 5 feet Above Sea Level (ASL) may be flooded inland as far as six miles and 3 feet higher during a high tide.

(4) **Category Four (Major)**. Sustained winds 114-135 knots (**131-155 mph**) or storm surge 13-18 feet above normal sea state. More extensive damage with some complete roof structure failure on small residences. Major erosion of beach areas. Major damage to lower floors of structures near the shore. Terrain continuously lower than 10 feet ASL may be flooded requiring evacuation of residential areas inland as far as six miles and 3 feet higher during a high tide.

(5) **Category Five (Major)**. Sustained winds greater than 135 knots (**155 mph**) or storm surge greater than 18 feet above the normal sea state. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Major damage to lower floors of all structures located less than 15 feet ASL and within 500 yards of the shoreline. Evacuation of residential areas on low ground within 5-10 miles of the shoreline may be required.

4. The following are sources of tropical cyclone specific information issued by the National Hurricane Center:

- a. Public Advisory. Provides critical hurricane warning and forecast information.
- b. Marine Advisory. Provides detailed hurricane track and wind field information.
- c. Tropical Cyclone Update. Highlights significant changes in a hurricane between advisories.
- d. Probabilities of Hurricane/Tropical Storm Conditions. Provide a measure of the forecast track accuracy. The probabilities have no relation to tropical cyclone intensity.
- e. Hurricane Local Statements. Issued by the local National Weather Service offices and provide forecasts on how the storm may impact a local area.
- f. Tropical Storm Watch. Tropical storm conditions are possible in the specified area within 36 hours.
- g. Tropical Storm Warning. Tropical storm conditions are expected in the specified area within 24 hours.
- h. Hurricane Watch. Hurricane conditions are possible in the specified area within 36 hours.
- i. Hurricane Warning. Hurricane conditions are expected in the specified area within 24 hours.

5. Tropical Cyclone Conditions. Tropical Cyclone Conditions (TCC) are set by the Commanding Officer, MCB, Camp Lejeune, NC. Destructive Weather Readiness Conditions are assigned as follows:

## **TCCs Are Timeline Enforced Action Sets**

(1) **TCC V (All Clear)**. In effect during the entire hurricane season (1 June to 30 November). The potential for the occurrence of destructive weather is elevated but no specific system threatens the Camp Lejeune complex. During hurricane season, commanders will automatically resume this readiness posture on 1 June and immediately after the passing of any destructive weather system. This Destructive Weather Condition is used for two reasons. First, to indicate our seasonal readiness and acknowledge the tropical storm/hurricane season (1 June to 30 November, annually) is in progress. Second, to indicate that the local storm system has passed, clean-up operations should commence, and normal operations may resume. MCB Camp Lejeune mobilizes equipment, manpower and establishes shelter operations based on the TCC timeline.

(2) **TCC IV, 72 Hours**. The National Weather Service forecasts the possibility that a destructive weather system, with sustained winds of 50 knots (58 mph) or greater, is anticipated to affect Camp Lejeune complex within 72 hrs.

(3) **TCC III, 48 hours**. A specific destructive weather system, with sustained winds of 50 knots or greater, is anticipated to affect the Camp Lejeune complex within 48 hrs.

(4) **TCC II, 24 hours**. A specific destructive weather system, with sustained winds of 50 knots or greater, is anticipated to affect the Camp Lejeune complex within 24 hrs.

(5) **TCC I 12 hours**. A specific destructive weather system, with sustained winds of 50 knots or greater, is anticipated to affect the Camp Lejeune complex within 12 hrs.

(6) **TCC IC, Caution, 6 hours**. A specific destructive weather system, with sustained winds of 50 knots or greater, is forecast to affect the Camp Lejeune complex within six (6) hrs.

(7) **TCC IE, Emergency, NOW**. The Camp Lejeune complex is currently experiencing a destructive weather system with sustained winds of 50 knots or greater.

(8) **TCC IR, Recovery**. A specific destructive weather system has passed and recovery operations can commence. Damage assessment survey teams will be out to look for any "Life Safety" issues and upon resolving any safety issues the "ALL CLEAR" will be given. Then and only then may you leave your quarters or work place.

- **Note: At sustained wind speeds of 50 mph or higher, Fire and Emergency Services vehicles are no longer available to respond**