

Climatology

41 Hurricanes and Tropical Storms have passed within 120 NM of Eglin AFB between 1870 and 2016

Number of storms by category passing within 120 NM:

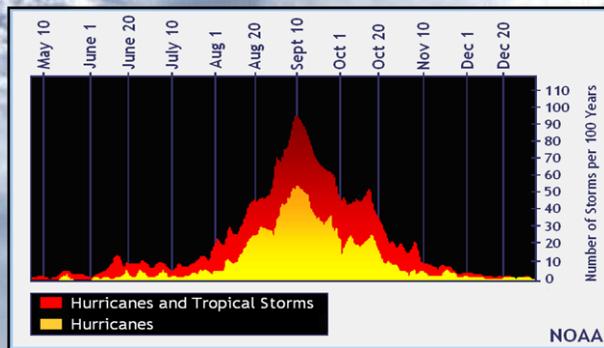
Category 1 hurricanes (74-95 mph): 23

Category 2 hurricanes (96-110 mph): 6

Category 3 hurricanes (111-129 mph): 12

All Categories: 41

Frequency of Tropical Cyclones in Atlantic Basin



Definitions:

Tropical Disturbance: A discrete tropical weather system of apparently organized convection -- originating in the tropics/ subtropics, & maintaining its identity for 24 hrs or more.

Tropical Depression (T.D.): A tropical cyclone in which the maximum sustained surface wind is 33 kts (38 mph) or less.

Tropical Storm (T.S.): A tropical cyclone in which the maximum sustained surface wind speed ranges from 34 – 63 kts (39 –73 mph).

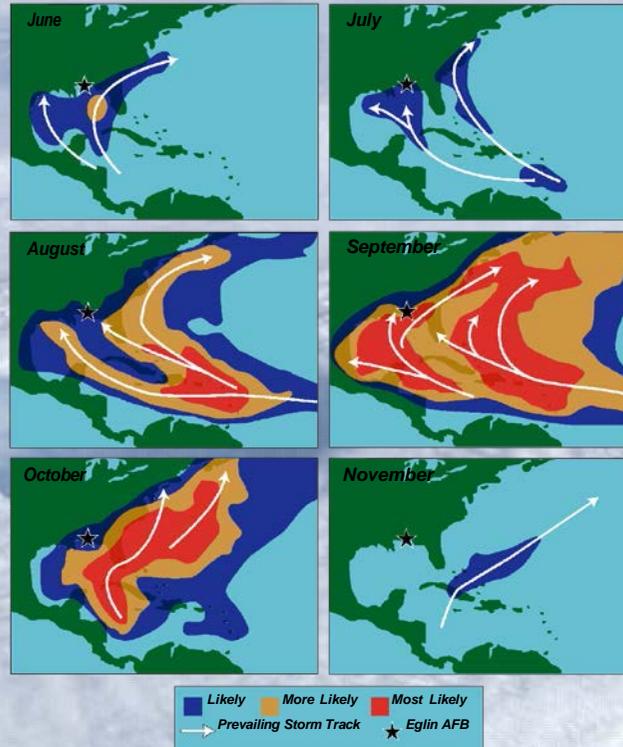
Hurricane (H.): A tropical cyclone in which the maximum sustained surface wind is 64 kts (74 mph) or more.

Hurricane Season

1 Jun – 30 Nov

Peak Season: 20 Aug – 20 Oct

Regions of Development



Real Time Storm Info/Data

96 WS Sharepoint:

<https://eglinweather.eglin.af.mil/sharepoint>

IWDS:

<https://eglinweather.eglin.af.mil/Iwds/>

National Hurricane Center (NHC):

<http://www.nhc.noaa.gov/>

96th Weather Squadron

CC: Lt Col Paul Homan 882-6803

DO: Maj James Hughes 882-6805

Duty Wx Technician: 882-4800

96TH WEATHER SQUADRON



HURRICANE WEATHER SUPPORT

20 APRIL 2018

Hurricane Response Summary

| TIME (HOURS) BEFORE STORM | HURCON | MAJOR ACTIVITIES |
|--|---------|---|
| 96 | 5 | <ul style="list-style-type: none"> Activate CAT, EOC and UCCs Submit roster for ATFs, Deployed CAT, Ride-Out teams, and Hurricane Recovery Teams' rosters to EOC Recall/assemble ATFs and deployed CAT |
| 72 | 4 | <ul style="list-style-type: none"> Deploy ATFs to Fort Benning and Robins AFB Dispatch Deployed CAT to Maxwell AFB Recall/assemble HRTs Evacuation order given. |
| <div style="display: flex; justify-content: space-around;"> EVACUATION NON-EVACUATION </div> | | |
| 48 | 3 | <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> Evacuate EAFB aircraft/prsnl Recall/assemble Ride-Out Tms Deactivate all UCCs Dispatch HRTs to Fort Benning </div> <div style="width: 48%;"> <ul style="list-style-type: none"> Evacuate FAMCAMP/rec. areas CAT, EOC, and UCCs operational Tie-down actg./release prsnl Deployed CAT and ATFs remain in place at their locations </div> </div> |
| 24 | 2 | <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> Ensure 100% prsnl/acft evacuated Dispatch Ride-Out Teams to shelter locations (Bldg 44, 7 SFG, 29 SPCS, & Okaloosa County EOC) Deployed CAT takes over C2 </div> <div style="width: 48%;"> <ul style="list-style-type: none"> Deactivate non-recovery/non-mission essential UCCs Assemble/dispatch Ride-Out Teams to their locations, as req'd Deployed CAT takes over C2 </div> </div> |
| 12 | 1 | <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> Deployed teams, evacuees, and acft at safe haven locations Bldg 44 Ride-Out Team closes EAFB ECps </div> <div style="width: 48%;"> <ul style="list-style-type: none"> Deployed teams and acft at refuge locations Personnel sheltering at off-/on-base residences and dorms EAFB ECps close </div> </div> |
| STORM OCCURRING | 1C & 1E | <ul style="list-style-type: none"> Shelter-in-place. Outdoor activity is prohibited. |
| POST-STORM | 1R | <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> Ride-Out Teams conduct initial EAFB damage assessment Release Ride-Out Teams/HRTs Begin recovery efforts/"All Clear" </div> <div style="width: 48%;"> <ul style="list-style-type: none"> Ride-Out Teams conduct initial EAFB damage assessment Release Ride-Out Teams/HRTs Begin recovery efforts/"All Clear" </div> </div> |

Hurricane Condition (HURCON) and Storm Category

HURCON 5 - Destructive winds are possible within **96 Hours.**

HURCON 4 - Destructive winds are possible within **72 Hours.**

HURCON 3 - Destructive winds are possible within **48 Hours.**

HURCON 2 - Destructive winds are possible within **24 Hours.**

HURCON 1 - Destructive winds are possible within **12 Hours.**

HURCON 1C - CAUTION: Winds of 40-57mph (35-49kts) sustained are occurring.

HURCON 1E - EMERGENCY: Winds of 58 mph/50 kts sustained and/or gusts of 69 mph/60 kts or greater are occurring. All outside activity is strictly prohibited.

HURCON 1R - RECOVERY: Destructive winds have subsided and are no longer forecast to occur; survey and work crews are permitted to determine the extent of the damage and to establish safe zones around hazards (e.g., downed power lines, unstable structures). Non-essential personnel are asked to remain indoors. ***Destructive Winds = >50kt sustained and/or >60kt gusts***

Storm Category

- Measure of Storm Intensity • Uses Saffir-Simpson Scale • Based on sustained wind speeds

Typical Damage by Storm Category

CAT 1: No real damage to buildings. Damage to unanchored mobile homes with some damage to poorly constructed signs, some coastal flooding and minor pier damage. (e.g. Erin 1995)

CAT 2: Some damage to building roofs, doors and windows with considerable damage to mobile homes. Pier damage and small craft in unprotected moorings may break their moorings. Some trees down. (e.g. Georges 1998)

CAT 3: Some structural damage to small residences and utility buildings with large trees blown down. Mobile homes and poorly built signs destroyed. Flooding near the coast destroys small structures with larger structures damaged by floating debris. Flooding well inland. (e.g. Ivan 2004)

CAT 4: More extensive wall failures with some complete roof structure failure on small residences. Major beach erosion with flooding well inland. (e.g. Charley 2004)

CAT 5: Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required. (e.g. Andrew 1992)

CAT 1:
Minimal Damage
Winds
74 - 95 mph
(64 - 82 kts)

CAT 2:
Extensive Damage
Winds
96 - 110 mph
(83-95 kts)

CAT 3:
Devastating
Winds
111-129 mph
(96-112 kts)

CAT 4:
Catastrophic
Winds
130-156 mph
(114-136 kts)

CAT 5:
Catastrophic
Winds
Above 157 mph
(Above 137 kts)

Hurricanes and Tropical Storm Hazards

HIGH WINDS: The strongest winds usually occur in the right side of the hurricane eyewall. Wind speeds typically decrease significantly within 12 hrs after landfall. Nonetheless, winds can stay above hurricane strength well inland. High winds create a number of dangers, including blowing debris becoming projectiles, structural failure due to wind pressure, and reduced visibility due to spray.

HEAVY RAIN/FLOODING: During landfall, a hurricane/tropical storm can produce 10 –15” of rain. Heavy rainfall is not directly related to the wind speed of the storm. In fact, some of the greatest rainfall amounts occur from weaker storms (i.e. tropical storms) that drift slowly or stall over an area (e.g. T.S. Claudette (1979) brought 45” of rain near Alvin, Tx). In the last 30 yrs most hurricane/ tropical storm deaths (~ 60% of deaths) have been due to flooding. An average person can be swept off their feet in as little as 6” of moving water.

TORNADOES/WATERSPOUTS: Some hurricanes/ tropical storms seem to produce no tornadoes, while others develop many (e.g. H. Ivan (2004) spawned 117 tornadoes). Studies have shown that more than half of the landfalling storms produce at least one tornado. Tornadoes are most likely to occur in the right-front quadrant of the storm, about 30 miles from the center. However, they are also can occur in the outer rainbands, sometimes 100-150 miles from the center. 10% of hurricane deaths are due to tornadoes.

STORM SURGE: Storm surge is simply water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the storm tide, which can increase the mean water level 15’ or more (e.g. H. Katrina (2005) produced a 32’ surge on the Mississippi coast). Wave action combined with surge and tide can create additional damage.