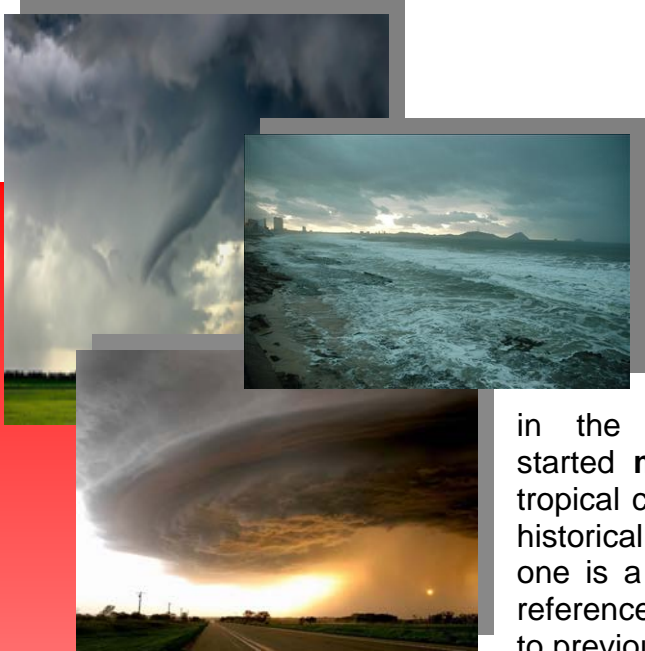


## Prevention Bulletin

May 2008



prognosis corresponding for the season of Hurricanes and/or Tropical Cyclones has been emitted in the Atlantic Ocean for the 2008, and started **may the 15th** . It hope that the number of tropical cyclones for this season stays by above of the historical average. It is important to remember that only one is a prognosis realised on the basis of historical references and behaviors of the atmosphere in relation to previous seasons, are other factors that of equal way

affect during the Season, as it is it the presence or not of the phenomenon of "The Niño" among others.

That means that these prognoses can vary at any time, there will be diverse updates during the course of the Season. On the other hand on the national coasts of the Gulf of Mexico and the Caribbean Sea the impact of 1 to 2 tropical cyclones is foretold.

In relation to the Pacific Ocean, the cyclonal activity for season 2008 will begin **June the 1st** and will last until November 30- 2008 and the impact of 1 to 2 tropical cyclones is foretold on the national coasts of the Pacific Ocean.


To be prepared is the only way to reduce the effects of these dangerous meteorological systems that every year take human lives and damage the countries within the affected zone.

For such reason GRUPO LM&S MEXICO will be constantly informing through "Warnings" and "Alerts" for Hurricanes and Tropical storms; as well as "Rain and Hailstorms" forecasts in all the regions of the country.

This information will be issued during the 2008 Hurricane Season that runs from May until November 30 of 2008, depending on the proximity, trajectory and risk that the active system, hurricane, storm or tropical depression represents for the nationals coasts. Also, during this season you will be receiving "Prevention Bulletins" regarding subjects of interest and security in relation to the atmospheric phenomena.

In the following section of this first bulletin you will find the technical information on 2008 Hurricanes season.

"To be informed is Prevention"



# Prevention Bulletin

May 2008

## Forecast of cyclones for 2008

Atlantic Ocean, Gulf of Mexico and Caribbean Sea		
Cyclone's Category	Forecast 2008	Historic Average
Tropical Storms	7	4.9
Hurricanes (Cat. 1 and 2)	4	7
Hurricanes (Cat. 3,4 and 5)	4	4
<b>Total</b>	<b>15</b>	<b>15</b>

Pacific Ocean		
Category of the cyclone	Forecast 2008	Historic Average
Tropical Storms	8	6.9
Hurricanes (Cat. 1 and 2)	2	4.1
Hurricanes (Cat. 3,4 and 5)	5	4.0
<b>Total</b>	<b>15</b>	<b>15</b>

## 2008 Hurricanes and/or Cyclones names

Names to be used to designate to possible hurricanes and tropical storms in the 2006 Hurricanes season in the Eastern North Pacific Ocean and the Atlantic Ocean (including the Caribbean Sea and Gulf of Mexico).

Eastern North Pacific		Atlantic Ocean, Caribbean Sea and Gulf of Mexico	
Alma	Marie	Arthur	Marco
Boris	Norbert	Bertha	Nana
Cristina	Odile	Cristobal	Omar
Douglas	Polo	Dolly	Paloma
Elida	Rachel	Edouard	Rene
Fausto	Simon	Fay	Sally
Genevieve	Trudy	Gustav	Teddy
Hernan	Vance	Hanna	Vicky
Iselle	Winnie	Ike	Wilfred
Julio	Xavier	Josephine	
Karina	Yolanda	Kyle	
Lowell	Zeke	Laura	

The previous names will be used for the forming cyclones. This is not a forecast of the number of cyclones.



# Prevention Bulletin

May 2008

## Formation Stages of Tropical Cyclones

The cyclones have several formation stages that are classified according to their winds intensity and destructive effects according to following chart:

Key	Term	Maximum winds (km/h)	Storm tide (m)	Potential damages	Definition
OT	Tropical wave	*	*	Minimum	A streambed or maximum cyclonic curvature submerged into the deep current of eastern winds, it displaces to the west, prone to form low pressure circulation.
PT	Tropical disturbance	*	*	Moderate	A well-organized convection system originated in the tropics or subtropics, with non-frontal migratory character and conservation of identity for at least 24 hrs.
DT	Tropical depression	62	*	Locally destructive	A tropical cyclone with wind circulation on the surface in the other direction than the hands of the clock, with maximum speeds of 62 km/h.
TT	Tropical storm	63-117	1.1	Destructive	A well-organized tropical cyclone, of hot nucleus, in which the maximum surface wind's intensity is from 63 to 117 km/h.
H	Hurricane	117		Highly destructive	A tropical cyclone with hot nucleus, in which the maximum surface wind's intensity (average during a minute) is equal or greater than 118 km/h.
H-1	Hurricane 1	118-153	1.2-1.5	Highly destructive	No effective damage to the buildings. Damage mainly to trailer parks, shrubs and trees. Also, some floods of coastal highways and slight damage in the docks.
H-2	Hurricane 2	154-177	1.6-2.4	Highly destructive	It causes some damage to tile roofs, doors and building's windows. Considerable damage to the vegetation, trailer parks and docks. The highways flood from 2 to 4 hours before the entrance of the center of the hurricane, the small boats in anchorages without protection break mooring cables.
H-3	Hurricane 3	178-209	2.5-3.6	Extremely destructive	It causes some structural damage to small residences and auxiliary constructions with small fissures in the coating walls. Destruction of trailer parks. The floods near to coast constitute the smallest structures and the floating rubble damage the greater ones, the flat lands under 1.5 mts can result more flooded up to 13 km of the coast or more.
H-4	Hurricane 4	210-249	3.7-5.4	Extremely destructive	More Generalized fissures in the coating walls with complete landslide of all the ceiling's structure in the small residences. Significant beach erosion. Serious damage in the low floors of the structures near to the coast. Floods of flat lands, under 3 ms, located up to 10 km of the coast.
H-5	Hurricane	249	5.4	Extremely destructive	Total landslide of the ceilings in many residences and industrial buildings. Some buildings completely crumble and the wind takes the small auxiliary constructions. Serious damage in the low floors of all structures located less than 4.6 ms over the sea level and within a distance of 460 ms from the coast.



# Saffir- Simpson Scale

## Category 1

- Considerable damage to vegetation, trees, foliage, houses without foundations and signposts badly constructed.
- Floods in lower coastal zones and smaller damage to docks. Probably some small boats let go from their mooring cables.
- Winds of : 118 - 152 kph
- Swells: 1.20 - 1.50 mts

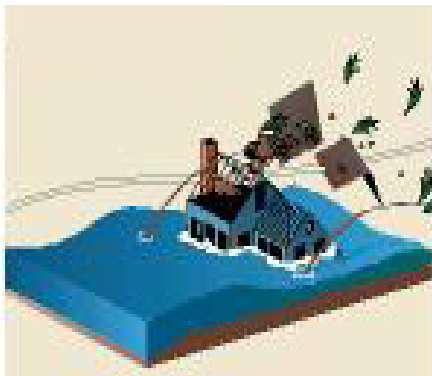


## Category 2

- Falling of trees, considerable damage to the building's ceilings, windows and doors.
- Coastal zones and escape routes closed by increase of the water level 2 or 4 hours before the hurricane's eye passing.
- Considerable damage to docks.
- Winds of: 153 - 176 kph
- Swells: 1.80 - 2.40 mts

## Category 3

- Structural damage to small buildings, serious coast floods, destruction of structures near the coast by waves attack and floating rubble.
- Total landslide of the ceilings of some small houses.
- Winds of: 177 - 208 kph
- Swells: 2.70 - 3.60 mts



## Category 4

- Floods in low zones located less than 3 mts over the level of the sea, to a distance of 9.5 km from the coast.
- Greater erosion in beaches. Possible evacuation is required of houses located at 500 mts from the beach or 3km from the coast.
- Landslide of the many houses and factories' ceilings.
- Winds of: 209- 248 kph
- Swells: 3.90 - 5-40 m

## Category 5

- Damage to doors and windows' panes. Total landslide of some buildings, greater damage to the ground floors of the structures located less than 500 mts of the beach.
- Massive evacuation of housing zones of low areas located at 8 to 16 km from the coast.
- Winds: more than 248 kph
- Swells: more than 5.40 mts

