

Start Here

Hurricane Tracking Chart and Planning Guide



Helpful Internet Resources:

- FM Global
www.fmglobal.com
- Federal Emergency Management Agency
www.fema.gov
- National Hurricane Center
www.nhc.noaa.gov
- National Oceanic and Atmospheric Administration
www.noaa.gov

Helpful FM Global Publications

- Flood Checklist (P9805)
- Pocket Guide to Emergency Response (P9914)
- Preparing for Flood Potential (P9803)
- Protecting Roofing Systems Against Windstorm Damage (P0283)
- Protecting Your Facility Against Major Windstorms (P9811)
- Severe Windstorm Checklist (P9308)
- The Emergency Response Team (P8116)
- Understanding the Hazard: Wind from Tropical Storms (P0046)*

* Available only to clients through local FM Global engineers

Helpful Resources

Contact Your Local FM Global Office

www.fmglobal.com

Need Advice?

Plan Ahead for Hurricane Season (June 1 – Nov. 30)

- Prepare a windstorm emergency response plan (WERP).
- Assemble and train your emergency response team (ERT).
- Assign someone on all shifts to know proper shutdown procedures.
- Order emergency supplies and maintain them throughout the windstorm season.
- Consider removing any large trees that could fall and cause damage.
- Perform a dry-run installation of windstorm shutters annually. If practical, leave them in place.

Make Sure Your Building Is Ready

Is your flashing secure?
Only if it passes the "pull test."

Is the roof covering over your steel deck roof secure?
Look for fasteners. If none are visible, your roof is deficient. If fasteners are visible, contact your FM Global engineer for an analysis of the securement.

Is your roof in good condition?
If it looks bad, it is bad, and won't hold up in a hurricane. If it feels like it's coming apart, chances are, it will come apart when you need it most.

Are windows and other openings secured?
Be sure all building openings (even skylights) are impact-resistant or protected by shutters, as needed.

When and How to Prepare

Yellow Zone

- Implement your windstorm emergency response plan.
- Track the storm's progress.
- Inspect flashing, roof covering, roof drains, site drains and catch basins. Test back-up equipment.
- Fill fuel tanks of generators, fire pumps and company vehicles.
- Fill above-ground tanks.
- Plan to have supplies on hand and staff on site.

Orange Zone

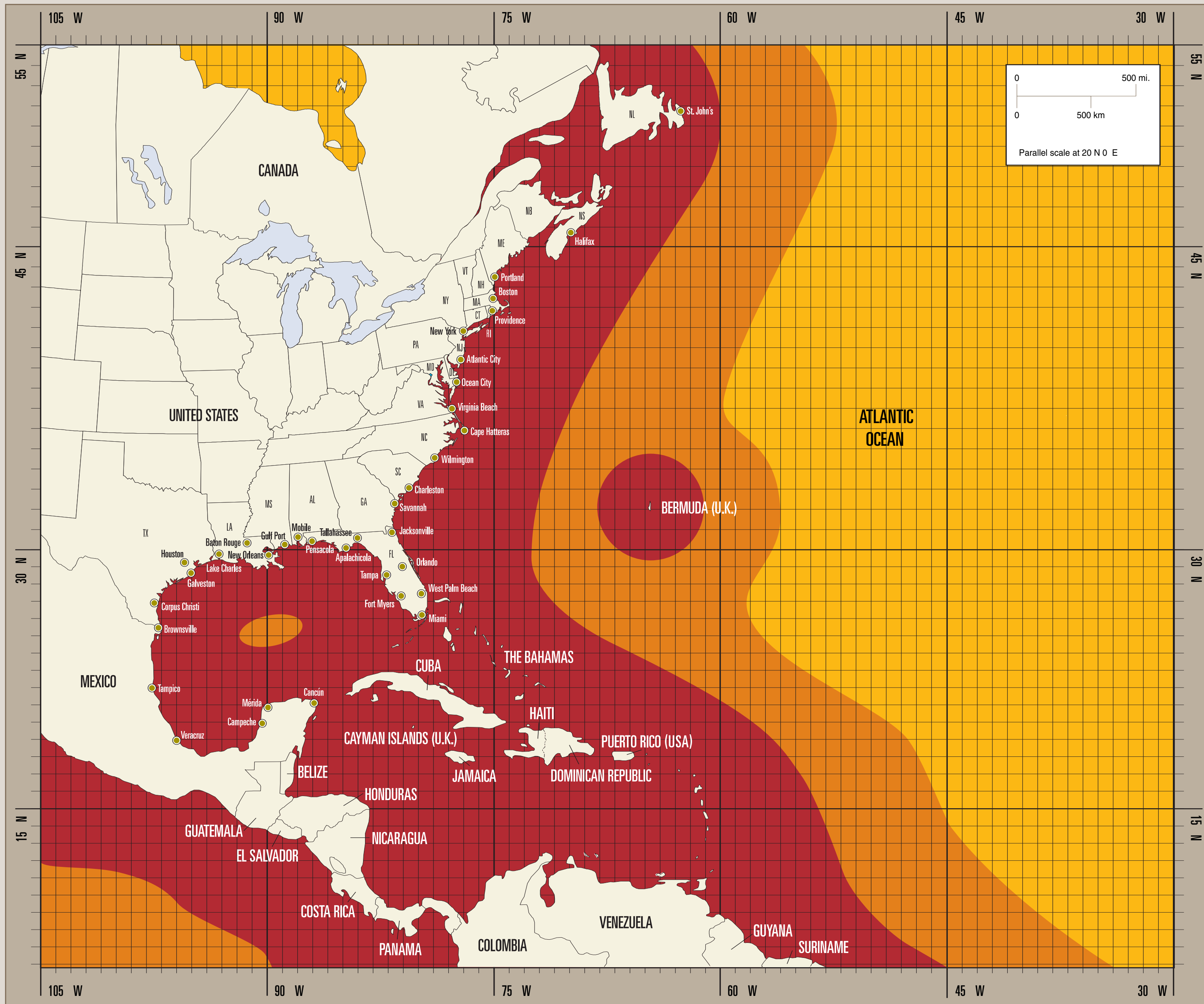
- Contact emergency management officials, track the storm, and take the following actions as needed:
- Install windstorm shutters.
 - Secure roof and outdoor equipment, remove outdoor debris.
 - Ship stock, if possible; lift remaining stock and equipment off the floor, and cover with tarpaulins.
 - Protect/relocate vital records.
 - Move all flammable liquid and dangerous chemicals to a secure area (never inside a main facility).
 - Inspect fire protection equipment, such as sprinkler-control valves and fire pumps.
 - Be ready for flooding or surface water, if exposed.

Red Zone

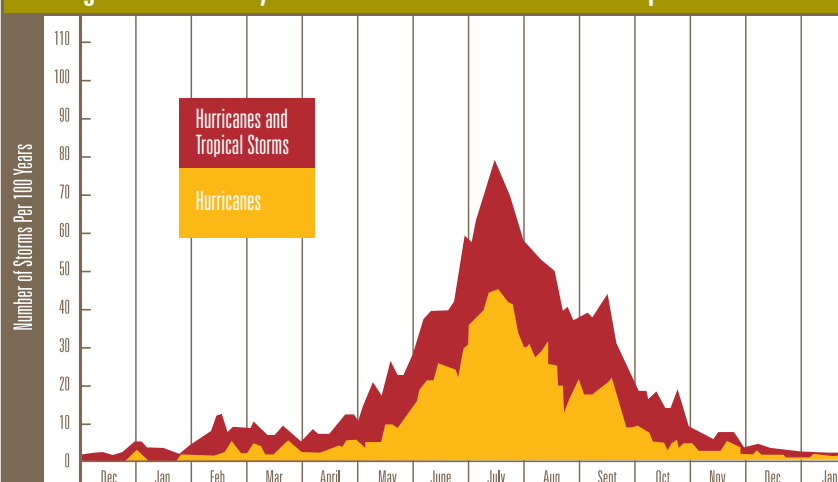
- Contact emergency management officials, track the storm and take the following actions as needed:
- Consider shutting down operations, particularly if evacuation begins.
 - Disconnect main electrical feeds and shut off natural gas.

Follow the Chart

The Saffir-Simpson Scale measures windstorm intensity. Next to it are two columns that compare the level of damage that can be expected if a facility is not adequately protected (Improvements Needed) with facilities where FM Global loss prevention standards are met.



Average Number of Days Per Season With Hurricane and Tropical Storm Winds



Saffir-Simpson Scale

3-Second Gust Wind Speed	60-Second Mean Wind Speed	Improvements Needed	FM Global Recommendations Followed
187 mph (301 kph)	156 mph (251 kph)	Catastrophic	Extreme
158 mph (254 kph)	131 mph (211 kph)	Extreme	Extensive
133 mph (214 kph)	111 mph (178 kph)	Extensive	Moderate
115 mph (185 kph)	96 mph (154 kph)	Moderate	Minimal
88 mph (142 kph)	74 mph (119 kph)	Minimal	Negligible

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Typhoon Tracking Chart and Planning Guide



Helpful Internet Resources:

- FM Global
www.fmglobal.com
- Federal Emergency Management Agency
www.fema.gov
- Japan Meteorological Agency
www.jma.go.jp/JMA_HP/en/typh/typh.all.html
- World Meteorological Organization
<http://severe.worldweather.org/pilot.html>
- Joint Typhoon Warning Center
www.npmoc.navy.mil/jtwc.html

Helpful FM Global Publications

- Flood Checklist* (P9805)
Available in: Korean, Simplified Chinese and Thai
- Pocket Guide to Emergency Response* (P9914)
- Preparing for Flood Potential* (P9803)
Available in Japanese, Simplified Chinese and Traditional Chinese
- Protecting Roofing Systems Against Windstorm Damage* (P0283)
- Protecting Your Facility Against Major Windstorms* (P9811)
- Severe Windstorm Checklist* (P9308)
- The Emergency Response Team* (P8116)
Available in: Korean, Simplified Chinese and Thai
- Understanding the Hazard: Wind from Tropical Storms* (P0046)*
Available in Japanese and Korean

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Helpful Resources

Plan Ahead for Typhoons

- Prepare a windstorm emergency response plan (WERP).
- Assemble and train your emergency response team (ERT).
- Assign someone on all shifts to know proper shutdown procedures.
- Order emergency supplies and maintain them throughout the windstorm season.
- Consider removing any large trees that could fall and cause damage.
- Perform a dry-run installation of windstorm shutters annually. If practical, leave them in place.

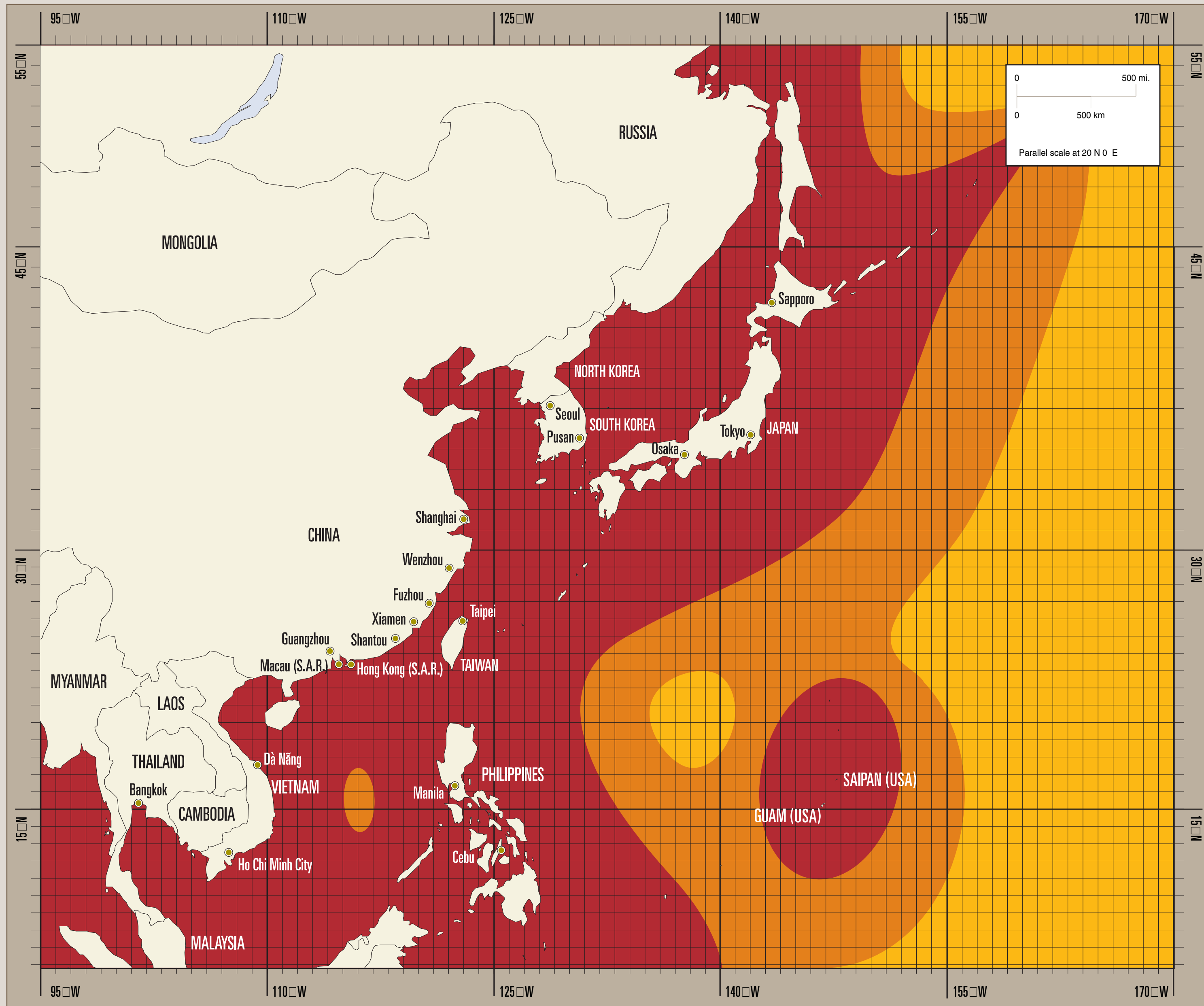
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When and How to Prepare

Yellow Zone

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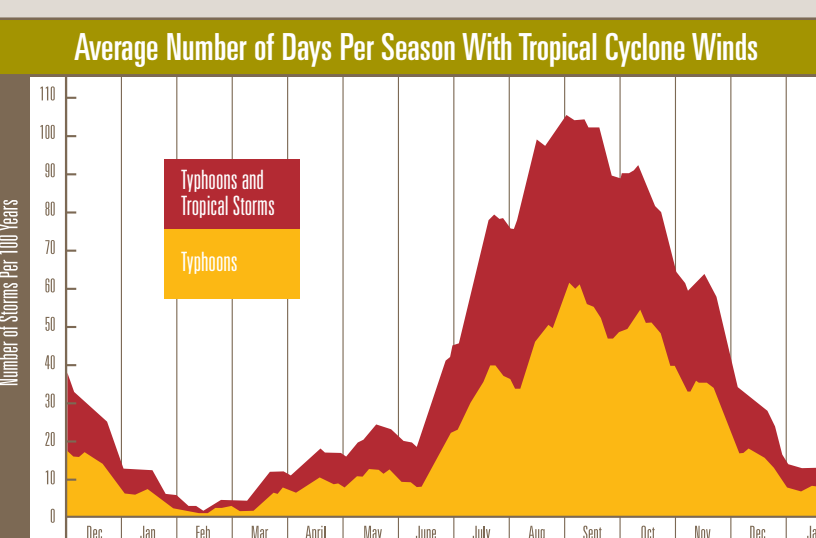
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