

NATIONAL WEATHER SERVICE INSTRUCTION 10-605

MAY 30, 2019

Operations and Services

Tropical Cyclone Weather Services Program, NWSPD 10-6

TROPICAL CYCLONE OFFICIAL GEOGRAPHIC DEFINING POINTS

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

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SUMMARY OF REVISIONS: This directive supersedes NWS Instruction 10-605, *Tropical Cyclone Official Geographic Defining Points*, dated August 16, 2018. The following revisions were made to this directive:

- Added Navarre, FL breakpoint (MOB)
- Changed name of Fernandina Beach to Mouth of St. Marys River (JAX)
- Corrected Merrimack River, MA latitude (BOX/GYX)
- Several Breakpoints had been incorrectly listed with Los Angeles WFO and were moved to the appropriate Central Pacific Islands with corrected latitude/longitude.
- Added breakpoints for American Samoa
- Changed the website for international and national breakpoints

Signed

5/16/2019

Andrew D. Stern

Date

Director

Analyze, Forecast and Support Office

**OFFICIAL DEFINING POINTS FOR TROPICAL CYCLONE
WATCHES AND WARNINGS**

*An asterisk following a breakpoint indicates the use of the breakpoint includes land areas adjacent to the body of water.

Brownsville, TX

Mouth of the Rio Grande, TX	25.96°N	97.15°W
Port Mansfield, TX	26.59°N	97.29°W
Baffin Bay, TX	27.29°N	97.37°W

Corpus Christi, TX

Baffin Bay, TX	27.29°N	97.37°W
North Entrance of the Padre Island National Seashore, TX27.47°N	97.29°W
Port Aransas, TX	27.83°N	97.07°W
Mesquite Bay, TX	28.06°N	96.85°W
Port O'Connor, TX	28.39°N	96.41°W

Houston / Galveston, TX

Port O'Connor, TX	28.39°N	96.41°W
Matagorda, TX	28.63°N	95.93°W
Sargent, TX	28.77°N	95.60°W
Freeport, TX	28.93°N	95.33°W
San Luis Pass, TX	29.07°N	95.13°W
Port Bolivar, TX	29.38°N	94.76°W
High Island, TX	29.54°N	94.39°W

Lake Charles, LA

High Island, TX	29.54°N	94.39°W
Sabine Pass, TX	29.69°N	93.84°W
Cameron, LA	29.78°N	93.30°W
Intracoastal City, LA	29.62°N	92.04°W
Morgan City, LA	29.48°N	91.29°W

New Orleans / Baton Rouge, LA

Morgan City, LA	29.48°N	91.29°W
Grand Isle, LA	29.25°N	89.96°W
Mouth of Mississippi River, LA	29.12°N	89.10°W
Mouth of Pearl River, LA	30.15°N	89.60°W
Lake Pontchartrain, LA*	30.20°N	90.13°W
Lake Maurepas, LA*	30.25°N	90.50°W
Pascagoula, MS	30.35°N	88.55°W
MS / AL Border	30.40°N	88.40°W

Mobile, AL

MS / AL Border	30.40°N	88.40°W
AL / FL Border	30.27°N	87.55°W
Navarre, FL	30.38°N	86.86°W
Okaloosa/Walton County Line, FL	30.38°N	86.40°W

Tallahassee, FL

Okaloosa/Walton County Line, FL	30.38°N	86.40°W
Walton / Bay County Line, FL	30.28°N	85.98°W
Panama City, FL	30.12°N	85.70°W
Mexico Beach, FL	29.93°N	85.39°W
Indian Pass, FL	29.68°N	85.27°W
Apalachicola, FL	29.73°N	84.99°W
Ochlocknee River, FL	29.96°N	84.38°W
St. Marks, FL	30.10°N	84.20°W
Aucilla River, FL	30.09°N	83.99°W
Keaton Beach, FL	29.82°N	83.59°W
Steinhatchee River, FL	29.67°N	83.40°W
Suwannee River, FL	29.30°N	83.17°W

Tampa Bay Area, FL

Suwannee River, FL	29.30°N	83.17°W
Yankeetown, FL	29.03°N	82.75°W
Chassahowitzka, FL	28.70°N	82.65°W
Aripeka, FL	28.43°N	82.66°W
Anclote River, FL	28.18°N	82.80°W
Egmont Key, FL	27.59°N	82.76°W
Anna Maria Island, FL	27.53°N	82.73°W
Middle of Longboat Key, FL	27.39°N	82.64°W
Englewood, FL	26.94°N	82.37°W
Boca Grande, FL	26.75°N	82.26°W
Bonita Beach, FL	26.32°N	81.84°W

Miami, FL (Gulf)

Bonita Beach, FL	26.32°N	81.84°W
Chokoloskee, FL	25.78°N	81.38°W
East Cape Sable, FL	25.12°N	81.08°W
Flamingo, FL	25.14°N	80.93°W

Key West, FL (Gulf)

Flamingo, FL	25.14°N	80.93°W
Dry Tortugas, FL	24.66°N	82.86°W
Key West, FL	24.55°N	81.81°W
Seven Mile Bridge, FL	24.70°N	81.15°W
Craig Key, FL	24.83°N	80.77°W
Card Sound Bridge, FL	25.29°N	80.37°W
Ocean Reef, FL	25.33°N	80.26°W

Miami, FL (Atlantic)

Ocean Reef, FL	25.33°N	80.26°W
Golden Beach, FL	25.97°N	80.12°W
Hallandale Beach, FL	25.99°N	80.12°W
Deerfield Beach, FL	26.32°N	80.07°W
Boca Raton, FL	26.36°N	80.07°W
Jupiter Inlet, FL	26.95°N	80.07°W

San Juan, PR

Puerto Rico	18.22°N	66.44°W
Vieques	18.12°N	65.43°W
Culebra	18.32°N	65.28°W
Saint Thomas / Saint John	18.33°N	64.85°W
Saint Croix	17.74°N	64.73°W

Melbourne, FL

Jupiter Inlet, FL	26.95°N	80.07°W
Stuart, FL	27.21°N	80.18°W
Fort Pierce, FL	27.46°N	80.28°W
Vero Beach, FL	27.65°N	80.35°W
Sebastian Inlet, FL	27.83°N	80.43°W
Cocoa Beach, FL	28.32°N	80.61°W
Volusia / Brevard County Line	28.79°N	80.73°W
New Smyrna Beach, FL	29.03°N	80.89°W

Jacksonville, FL

Flagler / Volusia County Line	29.43°N	81.11°W
Marineland, FL	29.67°N	81.21°W
Crescent Beach, FL	29.77°N	81.25°W
St. Augustine, FL	29.88°N	81.27°W
Ponte Vedra Beach, FL	30.24°N	81.38°W
Nassau Sound, FL	30.51°N	81.43°W
Mouth of St. Marys River, FL	30.71°N	81.44°W
Saint Andrews Sound, GA	30.99°N	81.42°W
Altamaha Sound, GA	31.29°N	81.29°W

Charleston, SC

Altamaha Sound, GA	31.29°N	81.29°W
Savannah River, GA	32.03°N	80.86°W
Edisto Beach, SC	32.49°N	80.32°W
South Santee River, SC	33.12°N	79.27°W

Wilmington, NC

South Santee River, SC	33.12°N	79.27°W
Murrells Inlet, SC	33.56°N	79.01°W
Little River Inlet, SC	33.85°N	78.55°W
Cape Fear, NC	33.84°N	77.96°W
Surf City, NC	34.44°N	77.52°W

Newport / Morehead City, NC

Surf City, NC	34.44°N	77.52°W
New River Inlet, NC	34.53°N	77.34°W
Bogue Inlet, NC	34.64°N	77.11°W
Cape Lookout, NC	34.60°N	76.53°W
Ocracoke Inlet, NC	35.06°N	76.00°W
Cape Hatteras, NC	35.22°N	75.53°W
Oregon Inlet, NC	35.77°N	75.53°W
Duck, NC	36.23°N	75.77°W

Wakefield, VA

Duck, NC	36.23°N	75.77°W
NC / VA Border	36.55°N	75.87°W
Cape Charles Light, VA	37.12°N	75.90°W
Parramore Island, VA	37.52°N	75.64°W
Chincoteague, VA	37.93°N	75.32°W
Chesapeake Bay, New Point Comfort, VA	37.30°N	76.28°W
Chesapeake Bay, Windmill Point, VA	37.61°N	76.28°W
Chesapeake Bay, Smith Point, VA	37.89°N	76.24°W
Fenwick Island, DE	38.46°N	75.05°W

Baltimore / Washington (Sterling, VA)

Chesapeake Bay, Smith Point, VA	37.89°N	76.24°W
Tidal Potomac, Cobb Island, MD	38.26°N	76.84°W
Tidal Potomac, Indian Head, MD	38.61°N	77.15°W
Tidal Potomac, Key Bridge, MD	38.89°N	77.07°W
Chesapeake Bay, Drum Point, MD	38.32°N	76.42°W
Chesapeake Bay, North Beach, MD	38.70°N	76.53°W
Chesapeake Bay, Sandy Point, MD	39.02°N	76.40°W
Chesapeake Bay, Pooles Island, MD	39.29°N	76.27°W

Philadelphia / Mt. Holly, NJ

Fenwick Island, DE	38.46°N	75.05°W
Cape Henlopen, DE	38.80°N	75.09°W
Delaware Bay South*	38.95°N	75.10°W
Delaware Bay North*	39.10°N	75.25°W
Cape May, NJ	38.94°N	74.90°W
Great Egg Inlet, NJ	39.29°N	74.54°W
Little Egg Inlet, NJ	39.49°N	74.31°W
Manasquan Inlet, NJ	40.10°N	74.03°W
Sandy Hook, NJ	40.46°N	74.00°W

New York City / Upton, NY

Sandy Hook, NJ	40.46°N	74.00°W
East Rockaway Inlet, NY	40.58°W	73.75°W
Fire Island Inlet, LI, NY	40.63°N	73.31°W
Moriches Inlet, LI, NY	40.77°N	72.75°W
Montauk Point, LI, NY	41.07°N	71.86°W
Port Jefferson Harbor, LI, NY	40.96°N	73.08°W
Kings Point, NY	40.84°N	73.75°W
Greenwich, CT	41.01°N	73.62°W
New Haven, CT	41.30°N	72.91°W
Watch Hill, RI	41.31°N	71.86°W

Boston / Norton, MA

Block Island, RI	41.16°N	71.56°W
Martha's Vineyard, MA	41.38°N	70.63°W
Nantucket, MA	41.27°N	70.04°W
Watch Hill, RI	41.31°N	71.86°W
Point Judith, RI	41.35°N	71.49°W

Westport, MA	41.50°N	71.11°W
Woods Hole, MA.	41.52°N	70.68°W
Chatham, MA.	41.67°N	69.95°W
Provincetown, MA	42.06°N	70.25°W
Sagamore Beach, MA	41.80°N	70.53°W
Plymouth, MA	41.98°N	70.65°W
Hull, MA	42.30°N	70.91°W
Gloucester, MA	42.58°N	70.66°W
Merrimack River, MA	42.84°N	70.82°W
Portland / Gray, ME		
Merrimack River, MA	42.84°N	70.82°W
Portsmouth, NH	43.05°N	70.72°W
Cape Elizabeth, ME	43.56°N	70.19°W
Port Clyde, ME	43.92°N	69.25°W
Stonington, ME	44.16°N	68.64°W
Caribou, ME		
Stonington, ME	44.16°N	68.67°W
Bar Harbor, ME	44.39°N	68.20°W
Eastport, ME	44.92°N	67.00°W
San Diego, CA		
Mouth of Tijuana River, CA	32.53°N	117.12°W
San Onofre State Beach, CA	33.39°N	117.59°W
Mouth of San Gabriel River, CA.	33.75°N	118.11°W
Los Angeles / Oxnard, CA		
Mouth of San Gabriel River, CA	33.75°N	118.11°W
Point Mugu, CA	34.11°N	119.12°W
Point Conception, CA	34.45°N	120.45°W
Point Sal, CA	34.90°N	120.67°W
Point Piedras Blancas, CA	35.66°N	121.29°W
Honolulu, HI (Main Hawaiian Islands)		
Hawaii	19.65°N	155.50°W
Kauai and Niihau	22.06°N	159.51°W
Maui, Molokai, Lanai, Kahoolawe	20.80°N	156.35°W
Oahu	21.46°N	158.00°W
Honolulu, HI (Other Central Pacific Islands)		
Nihoa	23.05°N	161.92°W
French Frigate Shoals	23.86°N	166.27°W
Maro Reef	25.33°N	170.50°W
Lisianski	26.06°N	173.96°W
Pearl and Hermes Atoll	27.83°N	175.83°W
Midway	28.21°N	177.37°W
Kure Atoll	28.40°N	178.30°W
Johnston Atoll	16.75°N	169.50°W
Palmyra Atoll	5.89°N	162.08°W
American Samoa		
Tutuila & Aunu'u	14.30°S	170.70°W

Ofu & Olosega		14.18°S	169.62°W
Ta'u		14.23°S	169.46°W
Swains Is.		11.08°S	171.04°W
Rose Atoll		14.32°S	168.09°W

WFO Guam Warning Area and Phonetic Pronunciations

Mariana Islands United States (CNMI - Commonwealth of the Northern Mariana Islands)

Agrihan	ah-GREE-ahn	18.80°N	145.70°E
Saipan (CNMI)	sah-EE-pan	15.20°N	145.80°E
Tinian (CNMI)	TIN-ee-an	15.00°N	145.60°E
Rota (CNMI)	ROH-tah	14.10°N	145.20°E
Guam	gwam	13.50°N	144.80°E

Republic of Palau

Sonsorol	son-soh-rall	5.30°N	132.20°E
Koror	KOH-roar	7.30°N	134.40°E
Kayangel	KAY-ANG-gul	8.10°N	134.70°E

Federated States of Micronesia

Ngulu (Yap State)	noo-loo	8.30°N	137.50°E
Yap	yap	9.50°N	138.10°E
Ulithi (Yap State)	U-lih-thee	9.90°N	139.60°E
Fais (Yap State)	fice	9.80°N	140.50°E
Fareulap (Yap State)	fah-JAH-lup	8.60°N	144.60°E
Woleai (Yap State)	whoa-lee-ay	7.40°N	143.90°E
Satawal (Yap State)	sat-ah-wahl	7.40°N	147.10°E
Puluwat Atoll (Chuuk State)	poo-loo-what	7.10°N	149.00°E
Ulul (Chuuk State)	oo-lool	8.60°N	149.70°E
Chuuk	chook	7.50°N	151.90°E
Fananu (Chuuk State)	fan-NAH-noo	8.60°N	151.90°E
Losap (Chuuk State)	LOW-sap	6.90°N	152.70°E
Lukunor (Chuuk State)	LOOK-oo-nour	5.60°N	154.00°E
Nukuoro (Pohnpei State)	noo-koo-OR-oh	3.90°N	154.90°E
Sapwuafik (Pohnpei State)	sop-HUA-fick	5.90°N	157.40°E
Pakin (Pohnpei State)	PA-kin	7.00°N	157.90°E
Pohnpei	POHEN-pay	6.90°N	158.20°E
Mokil (Pohnpei State)	moh-keel	6.80°N	159.80°E
Pingelap Atoll (Pohnpei State)	PEENG-eh-lap	6.20°N	160.70°E
Kosrae	kos-RYE	5.30°N	163.00°E

Republic of the Marshall Islands

Enewetak Atoll	ahn-eh-wee-tock A-tol	11.40°N	162.40°E
Ujae	oo-jye	8.90°N	165.80°E
Kwajalein	kwa-jah-lynn	8.70°N	167.80°E
Ailingalaplal	aye-leeng-ah-lop-lop	7.50°N	168.90°E

Jaluit Atoll	ja-loo-eet A-tol	5.90°N	169.60°E
Utirik	oo-teer-eek	11.20°N	169.60°E
Wotje Atoll	wot-jay A-tol	9.30°N	170.20°E
Majuro	ma-JUR-o	7.10°N	171.20°E
Mili Atoll	mill-lee A-tol	6.10°N	171.90°E

Please see <http://hurricanes.gov/breakpoints> for more information on breakpoints, including international breakpoints.