

***NATIONAL WEATHER SERVICE INSTRUCTION 10-605***

***JUNE 8, 2012***

***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/>.

---

**OPR:** W/OS21 (T. Schott)

**Certified by:** W/OS21 (M. Tew)

**Type of Issuance:** Emergency

---

***SUMMARY OF REVISIONS:*** This directive supersedes NWS Instruction 10-605 dated June 15, 2011. The following revisions were made to this directive:

For WFO Guam, corrected some locations and spellings; added phonetic pronunciations for Micronesian Islands

For WFOs Mount Holly and Wakefield, added new breakpoint for Fenwick Island, Delaware.

For WFO Upton, added new breakpoint for East Rockaway Inlet, New York.

Signed May 25, 2012  
David B. Caldwell Date  
Director, Office of Climate,  
Water, and Weather Services

**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.

La Pesca, MX.....23.76°N .....97.78°W  
 Rio San Fernando, MX .....25.00°N .....97.60°W

**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, TX  
 .....27.47°N .....97.29°W  
 Port Aransas, TX.....27.83°N .....97.07°W  
 Port O’Connor, TX .....28.39°N .....96.41°W

**Houston, 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, 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  
 Destin, FL .....30.39°N .....86.50°W

**Tallahassee, FL**

Destin, FL .....30.39°N .....86.50°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 .....	30.04°N	83.92°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, 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 Key, FL .....	28.18°N	82.85°W
Tarpon Springs, FL .....	28.15°N	82.79°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
<b>Melbourne, FL</b>		
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
Flagler Beach, FL.....	29.47°N	81.12°W
<b>Jacksonville, FL</b>		
Flagler Beach, FL .....	29.47°N	81.12°W
St. Augustine, FL .....	29.88°N	81.27°W
Fernandina Beach, FL .....	30.66°N	81.44°W
Altamaha Sound, GA .....	31.29°N	81.29°W
<b>Charleston, SC</b>		
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
<b>Wilmington, NC</b>		
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
<b>Morehead City, NC</b>		
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
North Pamlico Sound, NC*.....	35.26°N	76.04°W
South Pamlico Sound, NC* .....	35.24°N	76.04°W
Pamlico Sound, NC*.....	35.35°N	75.85°W
Albemarle Sound, NC*.....	36.05°N	76.10°W
East Albemarle Sound, NC* .....	36.05°N	75.90°W
Duck, NC .....	36.23°N	75.77°W
<b>Wakefield, VA</b>		
(The inclusion of Currituck Sound, NC, should be on a case-by-case basis).		
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

**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

**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, 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
New Haven, CT .....	41.30°N .....	72.91°W
Watch Hill, RI .....	41.31°N .....	71.86°W

**Boston, 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

Plymouth is only used as a southern terminus.

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, ME**

Merrimack River, MA .....	42.81°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 Mateo Point, CA .....	33.38°N	.....	117.60°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**

Northwest Hawaiian 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.....	26.08°N	....	174.00°W
Pearl and Hermes Atoll.....	27.83°N	....	175.83°W
Midway .....	28.02°N	...	177.37°W
Kure Atoll .....	28.42°N	....	178.33°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-llol	8.60°N	149.70°E
Chuuk	chook	7.50°N	151.90°E
Fananu (Chuuk State)	fah-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
Ailingalaplak	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

A listing of international breakpoints can be found at:  
[http://www.nhc.noaa.gov/breakpoints\\_list.shtml](http://www.nhc.noaa.gov/breakpoints_list.shtml)

**GEOGRAPHICAL DEFINING POINTS AND PHONETIC PRONUNCIATIONS**

Abaco	AB-a-KO
Abrejos	aahbray-oh-hoes
Amalie	a-MAHL-ye
Angel	aan-hel
Anguilla	ang-GWIL-a
Antigua	an-TEE-ga
Arena	aah-ray-nah
Arista	ah-ree-staa
Aruba	ah-ROO-ba
Antilles	an-TILL-leez
Azores	uh-ZOHRZ
Bahia	ba-e-yuh
Ballenas	ba-yaynas
Barahona	ba-ra-HO-na
Barbados	bar-BAY-dohz
Barbuda	bar-BOO-dah
Barra	baa-rra
Barranquilla	Bahr-rahn-KEE-yah
Basse-Terre	baha-TER
Bimini	BIM-I-ni
Bonaire	ba-NAIR
Burros	bhoorroes
Cap	Haitien kahp ah-ee-SYAN
Caracas	kah-RAH-kahs
Cardenas	car-denaass
Caribbean	kar-a-BE-an
Castries	KAS-tree
Cayman	kay-MAHN
Champerico	chaam-per-e-coe
Charlotte	
Colima	coleema
Corrientes	cor-re-ehn-tays
Cozumel	koh-soo-MEL
Curacao	koor-a-SOH
Cuyutlan	coo-yootlaan
Dominica	dom-I-NEE-ka
Eleuthera	el-OO-thera
Escondido	es-cond-dee-dow
Eugenia	ayuh-hen-yuh



Exuma	ek-SOO-ma
Flores	FLO-rish
Fort de France	for-de-FRAHCS
Galera	gaa-lehra
Grenada	gre-NAY-dah
Guadeloupe	GWAH-deh-loop
Guasave	gwaa-saa-ve
Guaymas	gwhy-maahs
Huatulco	whaa-tool-coe
Islas	eeslas
Jalisco	ha-lee-sco
Juanico	whaa-nee-coe
Lazaro	laasa-roe
Loreto	lo-ae-toe
Leeward	LEE-werd
Manzanillo	manza-nee-oh
Maracaibo	mar-a-KYE-boh
Maracay	mah-rah-KYE
Marigot	ma-ree-GOH
Mateo	muh-ta-yo
Mayaguez	may-yah-GWAYS
Medano	may-daa-no
Melaque	may-laa-kay
Merida	MAY-re-thah
Mochis	mo-chees
Montego	mon-TEE-go
Montserrat	mont-se-RAT
Mugu	muhgu
Mulege	moo-lay-hay
Nicaragua	nik-a-RAH-gwah
Ocho Rios	OH-cho REE-os
Oranjestad	o-RAHN-yuh-stat
Paramaribo	par-a-MAR-I-boh
Parguera	par-GWER-a
Penasco	pen-yaas-co

Pointe-a-Pitre	pwan-ta-PEE-tr
Ponce	PON-sa
Port-au-Prince	port-oh-PRINS
Punta	poonta
Revillagigedo	ray-veeaheehaydo
Saba	SAH-ba
Sao Miguel	soun ME-gel
Sipacate	see-paa-cao-tay
St Croix	ST croy
St Lucia	ST LOO-she-a
Soufriere	soo-free-ARSurinam
Surinam	SOOR-I-nam
Tampico	tam-PEE-ko
Tehuantepec	te-whaan-te-pec
Tela	TAY-lah
Tobago	to-BAY-go
Todos	todohs
Tomas	tow-maas
Tonala	ton-aahla
Tosca	toesca
Vallarta	vah-yar-ta
Yavaros	yaa-vaa-roce
Yucatan	yoo-ka-TAN
Zihuatanejo	zeeh-whaa-tanay-ho