

## CHAPTER 3

### GENERAL OPERATIONS AND PROCEDURES OF THE NATIONAL WEATHER SERVICE HURRICANE CENTERS

**3.1. General.** This chapter describes the products, procedures, and communications headers used by the Tropical Prediction Center/National Hurricane Center (TPC/NHC) and the Central Pacific Hurricane Center (CPHC). *See Appendix A for a description of local National Weather Service (NWS) office products which support the tropical cyclone forecast and warning program.*

#### **3.2. Products.**

**3.2.1. Tropical Weather Outlook (TWO).** Tropical weather outlooks are prepared and issued by the TPC/NHC and CPHC during their respective hurricane seasons. The TPC/NHC writes TWOs for both the Atlantic and Eastern Pacific Basins. They are transmitted at 0530, 1130, 1730, and 2230 Eastern Local Time in the Atlantic and at 0400, 1000, 1600, and 2200 Pacific Local Time. In the Central Pacific, TWOs are transmitted by the CPHC at 0200, 0800, 1400, and 2000 UTC. The outlook briefly describes significant areas of disturbed weather and their potential for tropical cyclone development out to 48 hours. A tropical weather summary of Atlantic, Eastern Pacific, and Central Pacific tropical cyclone activity will be prepared and issued at the end of each month during the hurricane season.

**3.2.2. Tropical Cyclone Discussion.** The TPC/NHC and the CPHC will, as appropriate, issue tropical cyclone discussions on Atlantic, Eastern Pacific, and Central Pacific tropical cyclones at 0300, 0900, 1500, and 2100 UTC. Discussions will be disseminated for intergovernmental use only and will contain preliminary prognostic positions and maximum wind-speed forecasts up to 72 hours; will describe objective techniques, synoptic features, and climatology used; and will provide reasons for track changes.

**3.2.3. Tropical Cyclone Public Advisories.** Tropical cyclone public advisories are issued by the TPC/NHC for all tropical cyclones in the Atlantic. In the Eastern Pacific, tropical cyclone public advisories are issued by TPC/NHC for tropical cyclones that are expected to affect land within 48 hours. In the Central Pacific, tropical cyclone public advisories are issued by CPHC for all tropical cyclones within the area of responsibility. Scheduled tropical cyclone public advisories are issued at the same time scheduled tropical cyclone forecast/advisories are issued. Watch and warning break points are listed in *Appendix B*. In the Western Pacific, public advisories are issued by the NWS Forecast Office, Tiyan, Guam, for all tropical cyclones within the Territory of Guam and Micronesia, using tropical cyclone forecasts/advisories prepared by the JTWC as guidance.

[NOTE: *To further publicize local products, when a tropical cyclone threatens a land area, the following statement shall be included in the advisory...“For storm information specific to your area...please monitor products issued by your local weather office.”* Tropical cyclone public advisories use statute miles for distance and miles per hour for speed. Nautical miles and knots may

be added at the discretion of the centers. *Atlantic advisories should include the metric units in kilometers and kilometers per hour following the equivalent English units except when the United States is the only country threatened.*]

**3.2.4. Tropical Cyclone Forecast/Advisories.** Tropical cyclone forecast/advisories are issued by the TPC/NHC and the CPHC. See Section 4.3 for content and format of the advisories. In both the Atlantic and Pacific, the advisories are scheduled for 0300, 0900, 1500, and 2100 UTC. Pacific advisories should be transmitted 15 minutes before the effective time. In the Western Pacific, tropical cyclone forecasts/advisories are issued by the JTWC; *Appendix C provides a listing of the abbreviated communications headings and titles for JTWC products.* Information on the broadcast of tropical cyclone information to coastal and high-seas shipping can be found in Chapter 9, Marine Weather Broadcasts.

### **3.2.5. Probability of Hurricane/Tropical Storm Conditions.**

**3.2.5.1. When Issued.** The probability of hurricane/tropical storm conditions shall be issued in tabular form at regularly scheduled tropical cyclone public advisory and tropical cyclone forecast/advisory times, and when public advisories are issued. These probabilities will generally be carried for all named storms in the Atlantic Basin<sup>1</sup> within 72 hours of forecasted landfall. In addition, TPC/NHC may issue probabilities for tropical depressions forecast to become named storms and be a threat to land within 72 hours. When a tropical cyclone is forecast to track parallel to a coastline, maximum values over water points should be included, and the tropical cyclone public advisory should state that the highest probabilities are over water. The 72-hour cumulative probabilities of less than 5 percent are not included in the transmitted probability tables.

**3.2.5.2. When Computed.** The probabilities, which are based on the official forecast track, should be issued when the 72-hour forecast position approaches the coast and should be carried in advisories until the storm makes landfall. Two conditions in which probability information should not be issued are: (1) the hurricane/tropical storm has made landfall and is not expected to reemerge over water and/or (2) the computed probability values are not significant. TPC/NHC may discontinue issuance of probabilities earlier if other factors arise, such as difficulties with evacuation orders, etc. At the discretion of the hurricane forecaster, probabilities need not be listed for sites where the tropical storm or hurricane would likely be over land or less than tropical storm strength at the time it would affect the site. TPC/NHC may include a brief explanation of probabilities in the advisory.

These probabilities should be computed shortly after synoptic times for the 0-24, 24-36, 36-48, and 48-72 hours. A total probability for the next 72 hours should be shown in the last column and should represent a total of all forecast periods. The probability of the storm striking a coastal location within 48 hours may be determined by adding the 0-24, 24-36, and 36-48 hour probabilities. If the probability for a location is less than 1 percent, an "X" will be indicated in the table. If probabilities are not to be issued, a statement will be included in both the tropical cyclone public advisory and the

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<sup>1</sup> Atlantic Basin includes the Atlantic, Caribbean, and Gulf of Mexico

tropical cyclone forecast/advisory. Refer to *Probability of Hurricane/Tropical Storm Conditions: A User's Manual* for further information.

**3.2.5.3. Locations.** When appropriate, specific probabilities will be computed for the following locations:

Brownsville, TX	Fort Pierce, FL
Corpus Christi, TX	Cocoa Beach, FL
Port O'Connor, TX	Daytona Beach, FL
Galveston, TX	Jacksonville, FL
Port Arthur, TX	Savannah, GA
New Iberia, LA	Charleston, SC
New Orleans, LA	Myrtle Beach, SC
Buras, LA	Wilmington, NC
Gulfport, MS	Morehead City, NC
Mobile, AL	Cape Hatteras, NC
Pensacola, FL	Norfolk, VA
Panama City, FL	Ocean City, MD
Apalachicola, FL	Atlantic City, NJ
St. Marks, FL	New York City, NY
Cedar Key, FL	Montauk Point, NY
Tampa, FL	Providence, RI
Venice, FL	Nantucket Island, MA
Fort Myers, FL	Hyannis, MA
Marco Island, FL	Boston, MA
Key West, FL	Portland, ME
Marathon, FL	Bar Harbor, ME
Miami, FL	Eastport, ME
West Palm Beach, FL	28N 93W
29N 85W	28N 95W
29N 87W	27N 96W
28N 89W	25N 96W
28N 91W	

Note: Probabilities are not issued for the west coast of the continental United States, Hawaii, and the Territory of Guam and Micronesia.

**3.2.6. Tropical Cyclone Updates.** Tropical cyclone updates are brief statements in lieu of or preceding special forecasts to inform of significant changes in a tropical cyclone, or to post or cancel watches and warnings.

**3.2.7. Atlantic and Gulf of Mexico Tropical Cyclone Position Estimates.** The hurricane centers may issue a position estimate between scheduled advisories/forecasts whenever the storm center is within 200 nm of a U.S. land-based radar and sufficient and regular radar reports are

available to the center. Position estimates disseminated to the public, DOD, and other Federal agencies will provide geographical positions in two ways: by latitude and longitude and by distance and direction from a well-known point.

**3.2.8. Special Tropical Disturbance Statement.** Special tropical disturbance statements may be issued to furnish information on strong formative, non-depression systems.

**3.2.9. Storm Summaries.** Storm summaries are written by the Hydrometeorological Prediction Center (HPC) after subtropical and tropical cyclones have moved inland and tropical cyclone public advisories and tropical cyclone forecast/advisories have been discontinued. Storm summaries shall continue to be numbered in sequence with tropical cyclone public advisories on named storms. Also, these summaries will reference the former storm's name and be issued as long as the remnants of the storm pose a serious hydrometeorological threat. As required, storm summaries will be issued four times daily at 0500, 1100, 1700, and 2300 UTC.

**3.2.10. Tropical Weather Discussion.** TPC/NHC issues these discussions four times a day. They describe significant features from the latest surface analysis and significant weather areas for the Gulf of Mexico, the Caribbean, and between the equator and 32°N in both the Atlantic and Eastern Pacific east of 140°W. Plain language is used.

**3.2.11. Tropical Disturbance Rainfall Estimates.** As required, the TPC/NHC/CPHC will issue satellite-based rainfall estimates for tropical disturbances and tropical cyclones within 36 hours of forecasted landfall.

**3.2.12. Satellite Interpretation Message.** CPHC issues these messages four times a day to describe synoptic features and significant weather areas. FAA contractions are used.

### **3.3. Designation of Tropical and Subtropical Cyclones.**

**3.3.1. Numbering of Tropical and Subtropical Depressions.** The hurricane centers are responsible for numbering tropical and subtropical depressions in their areas of responsibility. Tropical depressions shall be numbered consecutively beginning each season with the spelled out number "ONE." For ease in differentiation, tropical depression numbers shall include the suffix "E" for Eastern Pacific, "C" for Central Pacific, or "W" for Western Pacific, after the number. In both the Atlantic and Pacific, once the depression has reached tropical storm strength, it shall be named and the depression number dropped, not to be used again until the following year.

**3.3.1.1. Atlantic, Caribbean, and Gulf of Mexico.** Depression numbers, ONE, TWO, THREE, will be assigned by the TPC/NHC after advising the Naval Atlantic Meteorology and Oceanography Center (NAVLANTMETOCCEN) Norfolk.

**3.3.1.2. Pacific East of 140°W.** Depression numbers, with the suffix E, e.g., ONE-E, TWO-E, THREE-E, will be assigned by the TPC/NHC after advising *the Joint Typhoon*

*Warning Center (JTWC)*, Pearl Harbor, HI. The assigned identifier shall be retained even if the depression passes into another warning area.

**3.3.1.3. Pacific West of 140°W and East of 180°.** Depression numbers, with suffix C; e.g., ONE-C, TWO-C, THREE-C, will be assigned by the CPHC after advising *JTWC*.

**3.3.1.4. Pacific West of 180° and North of 0°.** Depression numbers, with suffix W; e.g., ONE-W, TWO-W, THREE-W, are assigned by *JTWC*.

**3.3.1.5. Subtropical Depressions.** The numbering of subtropical cyclones shall follow the same procedure as above except a separate consecutive numbering sequence beginning with "ONE" shall be used for subtropical depressions and continues in effect if the system strengthens into a subtropical storm.

### **3.3.2. Naming of Tropical and Subtropical Storms and Hurricanes.**

**3.3.2.1. Atlantic and Eastern Pacific.** Once the depression has reached tropical storm strength, it shall be named and the depression number will be dropped. If a subtropical cyclone becomes a tropical storm or hurricane, it receives the next available name in the tropical storm naming sequence. A different set of names will be used each year. After a set is used, it will drop to the end of the list to be used again in 6 years. Names of significant hurricanes will be retired and replaced. Lists of Atlantic and Eastern Pacific names are provided in Tables 3-2 and 3-3, respectively.

**3.3.2.2. Central Pacific.** When a tropical depression intensifies into a tropical storm or hurricane between 140°W and 180°, the depression number will be discontinued and replaced by an appropriate name. The CPHC will select the name from the list of Central Pacific names in Table 3-4. All of the names listed in each column, beginning with column 1, will be used before going on to the next column.

**3.3.2.3. Western Pacific.** *For the Pacific west of 180 degrees, the names of tropical storms and typhoons are assigned by RSMC Tokyo. The names listed in Table 3-5 (International Tropical Cyclone Names for the Western Pacific and South China Sea) are for information only. The meaning of each name, its phonetic pronunciation, and, in most instances, the name pronounced by a native speaker is available on the Hong Kong Observatory web site: [www.weather.gov.hk/informtc/sound/tcname2000e.htm](http://www.weather.gov.hk/informtc/sound/tcname2000e.htm). A special program is required to hear the names pronounced by a native speaker; those names appear in blue. The program is available for downloading from the web site.*

### **3.4. Transfer of Warning Responsibility.**

**3.4.1. TPC/NHC to CPHC.** When a tropical or subtropical cyclone approaches 140°W, the coordinated transfer of warning responsibility from TPC/NHC to CPHC will be made and the appropriate advisory issued.

**3.4.2. CPHC to JTWC/(RSMC, Tokyo).** When a tropical or subtropical cyclone crosses 180° from east to west, the coordinated transfer of warning responsibility from CPHC to *JTWC* will be made and the appropriate advisory issued. At the same time, the CPHC will coordinate with the RSMC, Tokyo so that they are aware that CPHC will be suspending the issuance of advisories.

**3.4.3. JTWC/(RSMC, Tokyo) to CPHC.** When a tropical or subtropical cyclone crosses 180° from west to east, the coordinated transfer of warning responsibility from *JTWC* to CPHC will be made. *JTWC* will append the statement, "Next advisory by CPHC-HNL" to their last advisory. At the same time, the CPHC will coordinate with RSMC, Tokyo so that they are aware that CPHC will be assuming the issuance of advisories.

**3.5. Alternate Warning Responsibilities.**

**3.5.1. Transfer to Alternate.** In the event of impending or actual operational failure of a hurricane forecast center, tropical warning responsibilities will be transferred to an alternate facility in accordance with existing directives and retained there until resumption of responsibility can be made. Alternate facilities are as follows:

<u>PRIMARY</u>	<u>ALTERNATE</u>
TPC/NHC	National Centers for Environmental Prediction Hydrometeorological Prediction Center (HPC) Camp Springs, MD
CPHC	TPC/NHC
CARCAH	53rd Weather Reconnaissance Squadron (53 WRS)
JTWC	NAVPACMETOCCEN Yokosuka
NWSO Tiyan, Guam	CPHC

**3.5.2. Notification.** The NAVLANTMETOCCEN, Norfolk, and *JTWC*, Pearl Harbor, will be advised by TPC/NHC, CARCAH, and CPHC, as appropriate, of impending or actual transfer of responsibility by the most rapid means available. *JTWC* will advise CPHC and TPC/NHC of impending or actual transfer of *JTWC* responsibilities. In the event of an operational failure of CARCAH, direct communication is authorized between the 53 WRS and the forecast facility. Contact 53 WRS at DSN 597-2409/COM 601-377-2409 or through the Keesler AFB Command Post at DSN 597-4330/COM 601-377-4330 (ask for the 53 WRS).

**Table 3-1. Atlantic Tropical Cyclone Names**

<u>2000</u>		<u>2001</u>		<u>2002</u>	
ALBERTO	al-BAIR-to	ALLISON		ARTHUR	
BERYL	BER-ril	BARRY		BERTHA	BUR-tha
CHRIS		CHANTAL	shan-TAHL	CRISTOBAL	CRIS-to-ball
DEBBY		DEAN		DOLLY	
ERNESTO	er-NES-toe	ERIN	AIR-in	EDOUARD	eh-DWARD
FLORENCE		FELIX	FEEL-ix	FAY	
GORDON		GABRIELLE	gay-bree-EL	GUSTAV	GOO-stahv
HELENE	he-LEEN	HUMBERTO	oom-BAIR-to	HANNA	
ISAAC	EYE-sak	IRIS	EYE-ris	ISIDORE	IS-i-door
JOYCE		JERRY		JOSEPHINE	JO-ze-feen
KEITH		KAREN		KYLE	
LESLIE		LORENZO		LILI	LIL-ee
MICHAEL	MIKE-el	MICHELLE		MARCO	
NADINE	nay-DEEN	NOEL		NANA	NAN-uh
OSCAR		OLGA		OMAR	
PATTY		PABLO	PA-blow	PALOMA	pa-LOW-ma
RAFAEL	ra-fa-EL	REBEKAH		RENE	re-NAY
SANDY		SEBASTIEN	say-BAS-tyan	SALLY	
TONY		TANYA	TAHN-ya	TEDDY	
VALERIE		VAN		VICKY	
WILLIAM		WENDY		WILFRED	
<u>2003</u>		<u>2004</u>		<u>2005</u>	
ANA		ALEX		ARLENE	
BILL		BONNIE		BRET	
CLAUDETTE	claw-DET	CHARLEY		CINDY	
DANNY		DANIELLE	dan-YELL	DENNIS	
ERIKA	ERR-ree-ka	EARL		EMILY	
FABIAN	FAY-bee-in	FRANCES		FRANKLIN*	
GRACE		GASTON	GAS-tone	GERT	
HENRI	ahn-REE	HERMINE	her-MEEN	HARVEY	
ISABEL	IS-a-bell	IVAN	eye-van	IRENE	
JUAN	WAN	JEANNE	JEEN	JOSE	ho-ZAY
KATE		KARL		KATRINA	ka-TREE-na
LARRY		LISA	LEE-sa	LEE*	
MINDY		MATTHEW		MARIA	ma-REEH-ah
NICHOLAS	NIK-o-las	NICOLE	ni-COLE	NATE	
ODETTE	o-DET	OTTO		OPHELIA	o-FEEL-ya
PETER		PAULA		PHILIPPE	fe-LEEP
ROSE		RICHARD	RICH-erd	RITA	
SAM		SHARY	SHA-ree	STAN	
TERESA	te-REE-sa	TOMAS	to-MAS	TAMMY	
VICTOR	VIC-ter	VIRGINIE	vir-JIN-ee	VINCE	
WANDA		WALTER		WILMA	

If over 21 tropical cyclones occur in a year, the Greek alphabet will be used following the W-named cyclone. *Franklin and Lee* replace the retired names of *Floyd and Lenny*.

**Table 3-2. Eastern Pacific Tropical Cyclone Names**

<u>2000</u>		<u>2001</u>		<u>2002</u>	
ALETTA	ah LET ah	ADOLPH		ALMA	AL mah
BUD		BARBARA		BORIS	
CARLOTTA		COSME	COS may	CRISTINA	
DANIEL		DALILA		DOUGLAS	
EMILIA	ee MILL ya	ERICK		ELIDA	ELL ee dah
FABIO	FAH bee o	FLOSSIE		FAUSTO	FOW sto
GILMA	GIL mah	GIL		GENEVIEVE	
HECTOR		HENRIETTE	hen ree ETT	HERNAN	her NAHN
ILEANA	ill ay AH nah	ISRAEL		ISELLE	ee SELL
JOHN		JULIETTE		JULIO	HOO lee o
KRISTY		KIKO	KEE ko	KENNA	
LANE		LORENA	low RAY na	LOWELL	
MIRIAM		MANUEL	mahn WELL	MARIE	
NORMAN		NARDA		NORBERT	
OLIVIA		ORTAVE	AHK tave	ODILE	oh DEAL
PAUL		PRISCILLA		POLO	
ROSA		RAYMOND		RACHEL	
SERGIO	SIR gee oh	SONIA	SONE yah	SIMON	
TARA		TICO	TEE koh	TRUDY	
VICENTE	vee CEN tay	VELMA		VANCE	
WILLA		WALLIS		WINNIE	
XAVIER	ZAY vier	XINA	ZEE nah	XAVIER	ZAY vier
YOLANDA	yo LAHN da	YORK		YOLANDA	yo LAHN da
ZEKE		ZELDA	ZEL dah	ZEKE	
<u>2003</u>		<u>2004</u>		<u>2005</u>	
ANDRES	ahn DRASE	AGATHA		ADRIAN	
BLANCA	BLAHN kah	BLAS		BEATRIZ	
CARLOS		CELIA		CALVIN	BEE a triz
DOLORES		DARBY		DORA	
ENRIQUE	anh REE kay	ESTELLE		EUGENE	
FELICIA	fa LEE sha	FRANK		FERNANDA	
GUILLERMO	gee YER mo	GEORGETTE		GREG	fer NAN dah
HILDA		HOWARD		HILARY	
IGNACIO	eeg NAH cio	ISIS	EYE sis	IRWIN	
JIMENA	he MAY na	JAVIER	ha VEE AIR	JOVA	
KEVIN		KAY		KENNETH	HO vah
LINDA		LESTER		LIDIA	
MARTY		MADELINE		MAX	
NORA		NEWTON		NORMA	
OLAF	OH lah f	ORLENE	or LEAN	OTIS	
PATRICIA		PAINE		PILAR	
RICK		ROSLYN		RAMON	
SANDRA		SEYMOUR		SELMA	rah MONE
TERRY		TINA		TODD	
VIVIAN		VIRGIL		VERONICA	
WALDO		WINIFRED		WILEY	
XINA	ZEE nah	XAVIER	ZAY vier	XINA	
YORK		YOLANDA	yo LAHN da	YORK	ZEE nah
ZELDA	ZEL dah	ZEKE		ZELDA	
					ZEL dah

If over 24 tropical cyclones occur in a year, the Greek alphabet will be used following ZEKE or ZELDA.

**Table 3-3. Central Pacific Tropical Cyclone Names**

COLUMN 1		COLUMN 2	
Name	Pronunciation	Name	Pronunciation
AKONI	ah-KOH-nee	AKA	AH-kah
EMA	EH-mah	EKEKA	eh-KEH-kak
HANA	HAH-nah	HALI	HAH-lee
IO	EE-oo	IOLANA	ee-OH-lah-nah
KELI	KEH-lee	KEONI	keh-ON-nee
LALA	LAH-lah	LI	LEE
MOKE	MOH-keh	MELE	MEH-leh
NELE	NEH-leh	NONA	NOH-nah
OKA	OH-kah	OLIWA	oh-LEE-vah
PEKE	PEH-keh	PAKA	PAH-kah
ULEKI	oo-LEH-kee	UPANA	oo-PAH-nah
WILA	VEE-lah	WENE	WEH-neh
COLUMN 3		COLUMN 4	
Name	Pronunciation	Name	Pronunciation
ALIKA	ah-LEE-kah	ANA	AH-nah
ELE	EH-leh	ELA	EH-lah
HUKO	HOO-koh	HALOLA	hah-LOH-lah
IOKE	ee-OH-keh	IUNE	ee-OO-neh
KIKA	KEE-kah	KIMO	KEE-moh
LANA	LAH-nah	LOKE	LOH-keh
MAKA	MAH-kah	MALIA	mah-LEE-ah
NEKI	NEH-kee	NIALA	nee-AH-lah
OLEKA	oh-LEH-kah	OKO	OH-koh
PENI	PEH-nee	PALI	PAH-lee
ULIA	oo-LEE-ah	ULIKA	oo-LEE-kah
WALI	WAH-lee	WALAKA	wah-LAH-kah

NOTE: Use Column 1 list of names until exhausted before going to Column 2, etc. All letters in the Hawaiian language are pronounced, including double or triple vowels.

**Table 3-4. International Tropical Cyclone Names  
for the Western Pacific and South China Sea**

	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Contributor</b>	<b>NAME</b>	<b>NAME</b>	<b>NAME</b>	<b>NAME</b>	<b>NAME</b>
<b>Cambodia</b>	Damrey	Kong-rey	Nakri	Krovanh	Sarika
<b>China</b>	Longwang	Yutu	Fengshen	Dujuan	Haima
<b>DPR Korea</b>	Kirogi	Toraji	Kalmaegi	Maemi	Meari
<b>HK, China</b>	Kai-tak	Man-yi	Fung-wong	Choi-wan	Ma-on
<b>Japan</b>	Tembin	Usagi	Kammuri	Koppu	Tokage
<b>Lao PDR</b>	Bolaven	Pabuk	Phanfone	Ketsana	Nock-ten
<b>Macau</b>	Chanchu	Wutip	Vongfong	Parma	Muifa
<b>Malaysia</b>	Jelawat	Sepat	Rusa	Melor	Merbok
<b>Micronesia</b>	Ewiniar	Fitow	Sinlaku	Nepartak	Nanmadol
<b>Philippines</b>	Bilis	Danas	Hagupit	Lupit	Talas
<b>RO Korea</b>	Kaemi	Nari	Changmi	Sudal	Noru
<b>Thailand</b>	Prapiroon	Vipa	Megkhla	Nida	Kularb
<b>U.S.A.</b>	Maria	Francisco	Higos	Omais	Roke
<b>Viet Nam</b>	Saomai	Lekima	Bavi	Conson	Sonca
<b>Cambodia</b>	Bopha	Krosa	Maysak	Chanthu	Nesat
<b>China</b>	Wukong	Haiyan	Haishen	Dianmu	Haitang
<b>DPR Korea</b>	Sonamu	Podul	Pongsona	Mindulle	Nalgae
<b>HK, China</b>	Shanshan	Lingling	Yanyan	Tingting	Banyan
<b>Japan</b>	Yagi	Kajiki	Kujira	Kompasu	Washi
<b>Lao PDR</b>	Xangsane	Faxai	Chan-hom	Namtheun	Matsa
<b>Macau</b>	Bebinca	Vamei	Linfa	Malou	Sanvu
<b>Malaysia</b>	Rumbia	Tapah	Nangka	Meranti	Mawar
<b>Micronesia</b>	Soulik	Mitag	Soudelor	Rananim	Guchol
<b>Philippines</b>	Cimaron	Hagibis	Imbudo	Malakas	Talim
<b>RO Korea</b>	Chebi	Noguri	Koni	Megi	Nabi
<b>Thailand</b>	Durian	Ramasoon	Hanuman	Chaba	Khanun
<b>U.S.A.</b>	Utor	Chataan	Etau	Kodo	Vicente
<b>Viet Nam</b>	Trami	Halong	Vamco	Songda	Saola

**NOTE:** The official international name list was effective January 1, 2000. Names will be assigned in rotation starting with Damrey for the first tropical cyclone of the year 2000 which is of tropical storm strength or greater. When the last name in column 5 (Saola) is used, the sequence will begin again with the first name in column 1 (Damrey).

**3.6. Abbreviated Communications Headings.** Abbreviated communications headings are assigned to advisories on tropical and subtropical cyclones and other advisories based on depression numbers or storm name and standard communications procedures.

[NOTE: An abbreviated heading consists of three groups with ONE space between each of the groups. The first group contains a data type indicator (e.g., WT for hurricane), a geographical indicator (e.g. NT for Atlantic Basin), and a number. The second group contains a location identifier of the message originator (e.g., KNHC for TPC/NHC). The third group is a date-time group in UTC. An example of a complete header is: WTNT31 KNHC 180400.]

Abbreviated communications headers for the areas of responsibility follow:

**3.6.1. Atlantic.**

ABNT20 KNHC	Tropical Weather Outlook
ABNT30 KNHC	Tropical Weather Summary (monthly)
WTNT41-45 KNHC	Tropical Cyclone Discussion
WTNT31-35 KNHC	Tropical Cyclone Public Advisory
WTNT21-25 KNHC	Tropical Cyclone Forecast/Advisory
WTNT71-75 KNHC	Tropical Cyclone Strike Probabilities
WTNT61 KNHC	Tropical Cyclone Update
WTNT51 KNHC	Tropical Cyclone Position Estimate
WONT41 KNHC	Special Tropical Disturbance Statement

**3.6.2. Pacific.**

**3.6.2.1. Advisories.** All advisories on hurricanes, tropical storms, and depressions are under WT abbreviated headings, as follows:

ABPZ30 KNHC	Tropical Weather Outlook
ABPA30 PHNL	Tropical Weather Summary (monthly)
TYPS10 PHNL	Southern Hemisphere Tropical Cyclone Summary

WTPZ21-25 KNHC	Tropical Cyclone Forecast/Advisory
WTPA21-25 PHNL	Tropical Cyclone Forecast/Advisory
WTPZ31-35 KNHC	Tropical Cyclone Public Advisory
WTPA31-35 PHNL	Tropical Cyclone Public Advisory
WTPQ31-35 PGUM	Tropical Cyclone Public Advisory

**3.6.2.2. Numbering.** Depressions are numbered internally and storms are named internally, but the number in the abbreviated headings does not relate to either the internal number of the depression or the name of the storm. The first cyclone would have 21 and 31 in the abbreviated headings, the second cyclone would have 22 and 32, the sixth cyclone would have 21 and 31, etc. The abbreviated heading would not change when a depression was upgraded to storm status.

ABPA20 PHNL	Tropical Weather Summary (monthly)
ABPZ20 KNHC	Tropical Weather Outlook
WTPZ41-45 KNHC	Tropical Cyclone Discussion
WTPA41-45 PHNL	Tropical Cyclone Discussion
WTPZ51 KNHC	Tropical Cyclone Position Estimate
WTPA51 PHNL	Tropical Cyclone Position Estimate
WTPQ51-55 PGUM	Tropical Cyclone Position Estimate
WTPZ61 KNHC	Tropical Cyclone Update
WTPA61 PHNL	Tropical Cyclone Update
WOPZ41 KNHC	Special Tropical Disturbance Statement
WOPA41 PHNL	Special Tropical Disturbance Statement
FXUS01 KWBC	1-2 Day Discussion
FXUS02 KWBC	3-5 Day Forecast
FXUS04 KWBC	Precipitation Discussion