

## APPENDIX A DEFINITIONS

**BEST TRACK** - A subjectively smoothed path, versus a precise and very erratic fix-to-fix path, used to represent tropical cyclone movement, and based on an assessment of all available data.

**CENTER** - The vertical axis or core of a tropical cyclone. Usually determined by cloud vorticity patterns, wind and/or pressure distribution.

**EPHEMERIS** - Position of a body (satellite) in space as a function of time; used for gridding satellite imagery. Since ephemeris gridding is based solely on the predicted position of the satellite, it is susceptible to errors from vehicle wobble, orbital eccentricity, the oblateness of the Earth, and variation in vehicle speed.

**EXPLOSIVE DEEPENING** - A decrease in the minimum sea-level pressure of a tropical cyclone of 2.5 mb/hr for at least 12 hours or 5 mb/hr for at least six hours (Dunnavan, 1981).

**EXTRATROPICAL** - A term used in warnings and tropical summaries to indicate that a cyclone has lost its "tropical" characteristics. The term implies both poleward displacement from the tropics and the conversion of the cyclone's primary energy source from the release of latent heat of condensation to baroclinic processes. It is important to note that cyclones can become extratropical and still maintain winds of typhoon or storm force.

**EYE** - The central area of a tropical cyclone when it is more than half surrounded by wall cloud.

**FUJIWHARA EFFECT** - A binary interaction where tropical cyclones within about 750 nm (1390 km) of each other begin to rotate about a

common midpoint (Brand, 1970; Dong and Neumann, 1983).

**INTENSITY** - The maximum sustained 1-minute mean surface wind speed, typically within one degree of the center of a tropical cyclone.

**MAXIMUM SUSTAINED WIND** - The highest surface wind speed averaged over a 1-minute period of time. (Peak gusts over water average 20 to 25 percent higher than sustained winds.)

**MEI-YU FRONT** - The Term "mei-yu" is the Chinese expression for "plum rains". The mei-yu front is a persistent east-west zone of disturbed weather during spring which is quasi-stationary and stretches from the east China coast, across Taiwan, and eastward into the Pacific south of Japan.

**MONSOON DEPRESSION** - A tropical cyclonic vortex characterized by: 1) its large size, the outer-most closed isobar may have a diameter on the order of 600 nm (1000 km); 2) a loosely organized cluster of deep convective elements; 3) a low-level wind distribution which features a 100-nm (200-km) diameter light-wind core which may be partially surrounded by a band of gales; and, 4) a lack of a distinct cloud system center. Note: most monsoon depressions which form in the western North Pacific eventually acquire persistent central convection and accelerated core winds marking its transition into a conventional tropical cyclone.

**MONSOON GYRE** - A mode of the summer monsoon circulation of the western North Pacific characterized by: 1) a very large nearly circular low-level cyclonic vortex that has an

outer-most closed isobar with diameter on the order of 1200 nm (2500 km); 2) a cloud band rimming the southern through eastern periphery of the vortex/surface low; 3) a relatively long (two week) life span - initially, a subsident regime exists in its core and western and north-western quadrants with light winds and scattered low cumulus clouds; later, the area within the outer closed isobar may fill with deep convective cloud and become a monsoon depression or tropical cyclone; and, 4) the large vortex cannot be the result of the expanding wind field of a preexisting monsoon depression or tropical cyclone. Note: a series of small or very small tropical cyclones may emerge from the "head" or leading edge of the peripheral cloud band of a monsoon gyre (Lander, 1993).

**RAPID DEEPENING** - A decrease in the minimum sea-level pressure of a tropical cyclone of 1.75 mb/hr or 42 mb for 24-hours (Holliday and Thompson, 1979).

**RECURVATURE** - The turning of a tropical cyclone from an initial path toward the west and poleward to east and poleward, after moving poleward of the mid-tropospheric subtropical ridge axis.

**REVERSE-ORIENTED MONSOON TROUGH** - The distinguishing characteristics of a reverse-oriented monsoon trough are a SW-NE (i.e., reverse orientation of the trough axis with respect to the normal NW-SE orientation of the trough axis, and the penetration of the trough axis into subtropical areas normally the province of easterly flow.

**SIGNIFICANT TROPICAL CYCLONE** - A tropical cyclone becomes "significant" with the issuance of the first numbered warning by the responsible warning agency.

**SIZE** - The areal extent of a tropical cyclone, usually measured radially outward from the

center to the outer-most closed isobar. Based on an average radius of the outer-most closed isobar, size categories in degrees of latitude follow: 1° to 2° = very small, 3° = small, 4° to 5° = medium (average), 6° to 9° = large, and 10° or greater = very large (Brand, 1972 and a modification of Merrill, 1982).

**STRENGTH** - The average wind speed of the surrounding low-level wind flow, usually measured within one to three degrees of the center of a tropical cyclone (Weatherford and Gray, 1985).

**SUBTROPICAL CYCLONE** - A low pressure system that forms over the ocean in the subtropics and has some characteristics of a tropical circulation, but not a central dense overcast. Although of upper cold low or low-level baroclinic origins, the system can transition to a tropical cyclone.

**SUPER TYPHOON** - A typhoon with maximum sustained 1-minute mean surface winds of 130 kt (67 m/sec) or greater.

**TROPICAL CYCLONE** - A non-frontal, migratory low-pressure system, usually of synoptic scale, originating over tropical or subtropical waters and having a definite organized circulation.

**TROPICAL DEPRESSION** - A tropical cyclone with maximum sustained 1-minute mean surface winds of 33 kt (17 m/sec) or less.

**TROPICAL DISTURBANCE** - A discrete system of apparently organized convection, generally 100 to 300 nm (185 to 555 km) in diameter, originating in the tropics or subtropics, having a non-frontal, migratory character and having maintained its identity for 12- to 24-hours. The system may or may not be associated with a detectable perturbation of the low-level wind or pressure field. It is the basic

generic designation which, in successive stages of development, may be classified as a tropical depression, tropical storm, typhoon or super typhoon.

**TROPICAL STORM** - A tropical cyclone with maximum 1-minute mean sustained surface winds in the range of 34 to 63 kt (17 to 32 m/sec), inclusive.

**TROPICAL UPPER-TROPOSPHERIC TROUGH (TUTT)** - A dominant climatological system and a daily upper-level synoptic feature of the summer season, over the tropical North Atlantic, North Pacific and South Pacific Oceans (Sadler, 1979). Cold core lows in the TUTT are referred to as cells, or TUTT cells.

**TYPHOON (HURRICANE)** - A tropical cyclone with maximum sustained 1-minute mean surface winds of 64 to 129 kt (33 to 66 m/sec). West of 180° E longitude they are called typhoons and east of 180° E longitude hurricanes.

**WALL CLOUD** - An organized band of deep cumuliform clouds that immediately surrounds the central area of a tropical cyclone. The wall cloud may entirely enclose or partially surround the center.

**WESTERLY WIND BURST** - A short-duration low-level westerly wind event along and near the equator in the western Pacific Ocean (and sometimes in the Indian Ocean) (Luther et al. 1983). Typically, a westerly wind burst (WWB) lasts several days and has westerly winds of at least 10 kt (5 m/sec) (Keen 1988). Most WWBs occur during the monsoon transition months of April-May, and November-December. They show some relationship to the ENSO phenomenon (Luther et al. 1983; Ramage 1986). Some WWBs are even more energetic, with wind speeds of 30 kt (15 m/sec) observed during well-developed systems.

These intense WWBs are associated with a large cluster of deep-convective cloud along the equator. An intense WWB is a necessary precursor to the formation of tropical cyclone twins symmetrical with respect to the equator (Keen 1982; Lander 1990).

## APPENDIX B

### NAMES FOR TROPICAL CYCLONES IN THE WESTERN NORTH PACIFIC OCEAN AND SOUTH CHINA SEA (Through 31 December 1995)

Column 1	Column 2	Column 3	Column 4
ANGELA <i>AN-gel-ah</i>	ABE <i>ABE</i>	AMY <i>A-mee</i>	AXEL <i>AX-ell</i>
BRIAN <i>BRY-an</i>	BECKY <i>BECK-ee</i>	BRENDAN <i>BREN-dan</i>	BOBBIE <i>BOB-ee</i>
COLLEEN <i>COL-leen</i>	CECIL <i>CEE-cil</i>	CAITLIN <i>KATE-lin</i>	CHUCK <i>CHUCK</i>
DAN <i>DAN</i>	DOT <i>DOT</i>	DOUG <i>DUG</i>	DEANNA <i>dee-AN-na</i>
ELSIE <i>ELL-see</i>	ED <i>ED</i>	ELLIE <i>ELL-ee</i>	ELI <i>EE-lye</i>
FORREST <i>FOR-rest</i>	FLO <i>FLO</i>	FRED <i>FRED</i>	FAYE <i>FAY</i>
GAY <i>GAY</i>	GENE <i>GEEN</i>	GLADYS <i>GLAD-iss</i>	GARY <i>GAR-ee</i>
HUNT <i>HUNT</i>	HATTIE <i>HAT-ee</i>	HARRY <i>HAR-ee</i>	HELEN <i>HELL-en</i>
IRMA <i>IR-ma</i>	IRA <i>EYE-ra</i>	IVY <i>EYE-vee</i>	IRVING <i>ER-ving</i>
JACK <i>JACK</i>	JEANA <i>JEAN-ah</i>	JOEL <i>JOLE</i>	JANIS <i>JAN-iss</i>
KORYN <i>ko-RIN</i>	KYLE <i>KYE-ell</i>	KINNA <i>KIN-na</i>	KENT <i>KENT</i>
LEWIS <i>LOU-iss</i>	LOLA <i>LOW-lah</i>	LUKE <i>LUKE</i>	LOIS <i>LOW-iss</i>
MARIAN <i>MAH-rian</i>	MANNY* <i>MAN-ee</i>	MELISSA* <i>meh-LISS-ah</i>	MARK <i>MARK</i>
NATHAN <i>NAY-than</i>	NELL <i>NELL</i>	NAT <i>NAT</i>	NINA <i>NEE-nah</i>
OFELIA <i>oh-FEEL-ya</i>	OWEN <i>OH-en</i>	ORCHID <i>OR-kid</i>	OSCAR* <i>OS-car</i>
PERCY <i>PURR-see</i>	PAGE <i>PAGE</i>	PAT <i>PAT</i>	POLLY <i>PA-lee</i>
ROBYN <i>ROB-in</i>	RUSS <i>RUSS</i>	RUTH <i>RUTH</i>	RYAN <i>RYE-an</i>
STEVE <i>STEEV</i>	SHARON <i>SHAR-on</i>	SETH <i>SETH</i>	SIBYL <i>SIB-ill</i>
TASHA <i>TA-sha</i>	TIM <i>TIM</i>	TERESA* <i>teh-REE-sah</i>	TED <i>TED</i>
VERNON <i>VER-non</i>	VANESSA <i>vah-NES-ah</i>	VERNE <i>VERN</i>	VAL <i>VAL</i>
WINONA <i>wi-NO-nah</i>	WALT <i>WALT</i>	WILDA <i>WILL-dah</i>	WARD <i>WARD</i>
YANCY <i>YAN-see</i>	YUNYA <i>YUNE-yah</i>	YURI <i>YOUR-ee</i>	YVETTE <i>ee-VET</i>
ZOLA <i>ZO-lah</i>	ZEKE <i>ZEEK</i>	ZELDA <i>ZELL-dah</i>	ZACK <i>ZACK</i>

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\* Name changes: MANNY replaced MIKE in 1991; MELISSA replaced MIREILLE, TERESA replaced THELMA in 1992, and OSCAR replaced OMAR in 1993.

NOTE 1: Names are assigned in rotation and alphabetically. When the last name in Column 4 (ZACK) has been used, the sequence will begin again with the first name in Column 1 (ANGELA).

NOTE 2: Pronunciation guide for names is italicized.

SOURCE: CINCPACINST 3140.1V

**APPENDIX B**  
(Continued)

**NAMES FOR TROPICAL CYCLONES IN THE  
WESTERN NORTH PACIFIC OCEAN AND SOUTH CHINA SEA  
(Effective 01 January 1996)**

Column 1		Column 2		Column 3		Column 4	
ANN	<i>AN</i>	ABEL	<i>A-bel</i>	AMBER	<i>AM-ber</i>	ALEX	<i>AL-x</i>
BART	<i>BART</i>	BETH	<i>BETH</i>	BING	<i>BING</i>	BABS	<i>BABS</i>
CAM	<i>KAM</i>	CARLO	<i>KAR-lo</i>	CASS	<i>KASS</i>	CHIP	<i>CHIP</i>
DAN	<i>DAN</i>	DALE	<i>DAY-l</i>	DAVID	<i>DAY-vid</i>	DAWN	<i>DAWN</i>
EVE	<i>EEV</i>	ERNIE	<i>ER-nee</i>	ELLA	<i>EL-lah</i>	ELVIS	<i>EL-vis</i>
FRANKIE	<i>FRANK-ee</i>	FERN	<i>FERN</i>	FRITZ	<i>FRITZ</i>	FAITH	<i>FAITH</i>
GLORIA	<i>GLOR-ee-uh</i>	GREG	<i>GREG</i>	GINGER	<i>JIN-ger</i>	GIL	<i>GIL</i>
HERB	<i>HERB</i>	HANNAH	<i>HAN-ah</i>	HANK	<i>HANK</i>	HILDA	<i>HIL-dah</i>
IAN	<i>EE-an</i>	ISA	<i>EE-sah</i>	IVAN	<i>I-van</i>	IRIS	<i>I-ris</i>
JOY	<i>JOY</i>	JIMMY	<i>JIM-ee</i>	JOAN	<i>JOAN</i>	JACOB	<i>JAY-kob</i>
KIRK	<i>KIRK</i>	KELLY	<i>KEL-ee</i>	KEITH	<i>KEETH</i>	KATE	<i>KATE</i>
LISA	<i>LEE-sah</i>	LEVI	<i>LEE-vi</i>	LINDA	<i>LIN-dah</i>	LEO	<i>LEE-o</i>
MARTY	<i>MAR-tee</i>	MARIE	<i>ma-REE</i>	MORT	<i>MORT</i>	MAGGIE	<i>MAG-ee</i>
NIKI	<i>NI-kee</i>	NESTOR	<i>NES-tor</i>	NICHOLE	<i>nik-KOL</i>	NEIL	<i>NEEL</i>
ORSON	<i>OR-son</i>	OPAL	<i>O-pel</i>	OTTO	<i>OT-tow</i>	OLGA	<i>OL-gah</i>
PIPER	<i>PI-per</i>	PETER	<i>PEE-ter</i>	PENNY	<i>PEN-ee</i>	PAUL	<i>PAUL</i>
RICK	<i>RICK</i>	ROSIE	<i>RO-zee</i>	REX	<i>REX</i>	RACHEL	<i>RAY-chel</i>
SALLY	<i>SAL-lee</i>	SCOTT	<i>SCOTT</i>	STELLA	<i>STEL-lah</i>	SAM	<i>SAM</i>
TOM	<i>TOM</i>	TINA	<i>TEE-nah</i>	TODD	<i>TODD</i>	TANYA	<i>TAHN-yah</i>
VIOLET	<i>VI-uh-let</i>	VICTOR	<i>vik-TOR</i>	VICKI	<i>VIK-ee</i>	VIRGIL	<i>VER-jil</i>
WILLIE	<i>WIL-lee</i>	WINNIE	<i>WIN-ee</i>	WALDO	<i>WAL-doh</i>	WENDY	<i>WEN-dee</i>
YATES	<i>YATES</i>	YULE	<i>YOU-lee</i>	YANNI	<i>YAN-nee</i>	YORK	<i>YORK</i>
ZANE	<i>ZANE</i>	ZITA	<i>ZEE-tah</i>	ZEB	<i>ZEB</i>	ZIA	<i>ZEE-uh</i>

**NOTE 1:** Assign names in rotation, alphabetically, starting with (ANN) for first tropical cyclone of 1996. When the last name in Column 4 (ZIA) has been used, the sequence will begin again with the first name in Column 1 (ANN).

**NOTE 2:** Pronunciation guide for names is italicized.

**SOURCE:** CINCPACINST 3140.1W (Draft)

## APPENDIX C CONTRACTIONS

<b>A-track</b>	Along-track	<b>AUTODIN</b>	Automated Digital Network	<b>DDN</b>	Defense Data Network
<b>AB</b>	Air Base	<b>AWDS</b>	Automated Weather Distribution System	<b>DEG</b>	Degree(s)
<b>ABW</b>	Air Base Wing	<b>AWN</b>	Automated Weather Network	<b>DFS</b>	Digital Facsimile System
<b>ABIO</b>	Significant Tropical Weather Advisory for the Indian Ocean	<b>BLND</b>	Blended (Hybrid Aid)	<b>DMSP</b>	Defense Meteorological Satellite Program
<b>ABPW</b>	Significant Tropical Weather Advisory for the Western Pacific Ocean	<b>CDO</b>	Central Dense Overcast	<b>DOD</b>	Department of Defense
<b>ACCS</b>	Air Control Center Squadron	<b>CI</b>	Current Intensity	<b>DSN</b>	Defense Switched Network
<b>ACFT</b>	Aircraft	<b>CIV</b>	Civilian	<b>DTG</b>	Date Time Group
<b>ADP</b>	Automated Data Processing	<b>CLD</b>	Cloud	<b>EGRR</b>	Bracknell Model
<b>AFB</b>	Air Force Base	<b>CLIM</b>	Climatology	<b>ERS</b>	European Space Agency (ESA) Remote Sensing satellite
<b>AFGWC</b>	Air Force Global Weather Central	<b>CLIP or CLIPER</b>	Climatology and Persistence Technique	<b>FBAM</b>	FNOC Beta and Advection Model
<b>AIREP</b>	Aircraft (Weather) Report	<b>CM</b>	Centimeter(s)	<b>FI</b>	Forecast Intensity (Dvorak)
<b>AJTWC</b>	Alternate Joint Typhoon Warning Center	<b>C-MAN</b>	Coastal-Marine Automated Network	<b>FLENUMETOCEN</b>	Fleet Numerical Meteorology and Oceanography Center
<b>AMOS</b>	Automatic Meteorological Observing Station	<b>CMOD</b>	Compact Meteorological and Oceanographic Drifter	<b>FT</b>	Foot/Feet
<b>AOR</b>	Area of Responsibility	<b>COMNAVMETOCOM</b>	Commander Naval Meteorology and Oceanography Command	<b>GMS</b>	Geostationary Meteorological Satellite
<b>ARC</b>	Automated Remote Collection (system)	<b>CPA</b>	Closest Point of Approach	<b>GMT</b>	Greenwich Mean Time
<b>ARGOS</b>	(International Service for Drifting Buoys)	<b>CPHC</b>	Central Pacific Hurricane Center	<b>GOES</b>	Geostationary Operational Environmental Satellite
<b>ATCF</b>	Automated Tropical Cyclone Forecast (system)	<b>CSC</b>	Cloud System Center	<b>GSRS</b>	Geostationary Satellite Receiving System
		<b>CSUM</b>	Colorado State University Model	<b>GTS</b>	Global Telecommunications System
		<b>DAVE</b>	Name of a Hybrid Aid		

<b>hPa</b>	Hectopascal	<b>MBAM</b>	Medium Beta and Advection Model	<b>Radar</b>
<b>HPAC</b>	Mean of XTRP and CLIM Techniques (Half Persistence and Climatology)	<b>MCAS</b>	Marine Corps Air Station	<b>NHC</b> National Hurricane Center
<b>HF</b>	High Frequency	<b>MCS</b>	Mesoscale Convective System	<b>NM</b> Nautical Mile(s)
<b>HR</b>	Hour(s)	<b>MET</b>	Meteorological	<b>NMC</b> National Meteorological Center
<b>HRPT</b>	High Resolution Picture Transmission	<b>MIDDAS</b>	Meteorological Imagery, Data Display, and Analysis System	<b>NOAA</b> National Oceanic and Atmospheric Administration
<b>ICAO</b>	International Civil Aviation Organization	<b>MIN</b>	Minimum	<b>NODDES</b> Naval Environmental Data Network Oceanographic Data Distribution and Expansion System
<b>INIT</b>	Initial	<b>MINI-MET</b>	Mini-Meteorological	
<b>INST</b>	Instruction	<b>MISTIC</b>	Mission Sensor Tactical Imaging Computer	<b>NODDS</b> Navy/NOAA Oceanographic Data Distribution System
<b>IR</b>	Infrared	<b>MM</b>	Millimeter(s)	
<b>JTWC</b>	Joint Typhoon Warning Center	<b>MOVG</b>	Moving	<b>NOGAPS or NGPS</b> Navy Operational Global Atmospheric Prediction System
<b>JTWC92 or JT92</b>	Statistical-Dynamical Objective Technique	<b>MSLP</b>	Minimum Sea-level Pressure	
<b>JTYM</b>	Japanese Typhoon Model	<b>NARDAC</b>	Naval Regional Data Automation Center	<b>NAVPACMETOCEN</b> Naval Pacific Meteorology and Oceanography Center (Hawaii)
<b>KM</b>	Kilometer(s)	<b>NAS</b>	Naval Air Station	<b>NAVPACMETOCEN WEST</b> Naval Pacific Meteorology and Oceanography Center (Guam)
<b>KT</b>	Knot(s)	<b>NASA</b>	National Aeronautics and Space Administration	
<b>LAN</b>	Local Area Network	<b>NCTAMS</b>	Naval Computers and Telecommunications Area Master Station	<b>NPS</b> Naval Postgraduate School
<b>LAT</b>	Latitude	<b>NEDN</b>	Naval Environmental Data Network	<b>NR</b> Number
<b>LLCC</b>	Low-Level Circulation Center	<b>NESDIS</b>	National Environmental Satellite, Data, and information Service	<b>NRL</b> Naval Research Laboratory
<b>LONG</b>	Longitude	<b>NESN</b>	Naval Environmental Satellite Network	<b>NRPS or NORAPS</b> Navy Operational Regional Atmospheric Prediction System
<b>LUT</b>	Local User Terminal	<b>NEXRAD</b>	Next Generation (Doppler Weather)	<b>NSDS-G</b> Naval Satellite Display System - Geostationary
<b>LVL</b>	Level			
<b>M</b>	Meter(s)			
<b>MAX</b>	Maximum			
<b>MB</b>	Millibar(s)			

<b>NTCC</b>	Naval Telecommunications Center	<b>SGDB</b>	Satellite Global Data Base	<b>TUTT</b>	Tropical Upper-Tropospheric Trough
<b>NWP</b>	Northwest Pacific	<b>SLP</b>	Sea-Level Pressure	<b>TY</b>	Typhoon
<b>NWS</b>	National Weather Service	<b>SPAWRSYSCOM</b>	Space and Naval Warfare Systems Command	<b>TYAN</b>	Typhoon Analog (Forecast Aid)
<b>OBS</b>	Observations	<b>SSM/I</b>	Special Sensor Microwave/Imager	<b>ULCC</b>	Upper-Level Circulation Center
<b>OLS</b>	Operational Linescan System	<b>SST</b>	Sea Surface Temperature	<b>US</b>	United States
<b>ONR</b>	Office of Naval Research	<b>STNRY</b>	Stationary	<b>USAF</b>	United States Air Force
<b>OSS</b>	Operations Support Squadron	<b>ST</b>	Subtropical	<b>USCINCPAC</b>	Commander-in-Chief Pacific (AF - Air Force, FLT - Fleet)
<b>OTCM</b>	One-Way (Interactive) Tropical Cyclone Model	<b>STR</b>	Subtropical Ridge	<b>USN</b>	United States Navy
<b>PACAF</b>	Pacific Air Force	<b>STRT</b>	Straight (Forecast Aid)	<b>VIS</b>	Visual
<b>PACMEDS</b>	Pacific Meteorological Data System	<b>STY</b>	Super Typhoon	<b>WESTPAC</b>	Western (North) Pacific
<b>PACOM</b>	Pacific Command	<b>TAPT</b>	Typhoon Acceleration Prediction Technique	<b>WGTD</b>	Weighted (Hybrid Aid)
<b>PCN</b>	Position Code Number	<b>TC</b>	Tropical Cyclone	<b>WMO</b>	World Meteorological Organization
<b>PDN</b>	Public Data Network	<b>TCFA</b>	Tropical Cyclone Formation Alert	<b>WNP</b>	Western North Pacific
<b>PIREP</b>	Pilot Weather Report(s)	<b>TD</b>	Tropical Depression	<b>WRN or WRNG</b>	Warning(s)
<b>RADOB</b>	Radar Observation	<b>TDA</b>	Typhoon Duty Assistant	<b>WSD</b>	Wind Speed and Direction
<b>RECON</b>	Reconnaissance	<b>TDO</b>	Typhoon Duty Officer	<b>X-track</b>	Cross-track
<b>RECR</b>	Recurve (Forecast Aid)	<b>TESS</b>	Tactical Environmental Support System	<b>XTRP</b>	Extrapolation
<b>ROCI</b>	Radius of outer-most closed isobar	<b>TIROS-N</b>	Television Infrared Observational Satellite-Next Generation	<b>Z</b>	Zulu time (Greenwich Mean Time/Universal Coordinated Time)
<b>SAT</b>	Satellite	<b>TOGA</b>	Tropical Ocean Global Atmosphere		
<b>SEC</b>	Second(s)	<b>TOVS</b>	TIROS Operational Vertical Sounder		
<b>SDHS</b>	Satellite Data Handling System	<b>TS</b>	Tropical Storm		
<b>SFC</b>	Surface				

## APPENDIX D

### PAST ANNUAL TROPICAL CYCLONE REPORTS

Copies of the past Annual Tropical Cyclone Reports for DOD agencies or contractors can be obtained through:

Defense Technical Information Center  
ATTN:FDAC  
Cameron Station  
Alexandria, VA 22304-6145

Phone: (703)-274-7633  
Fax: (703)-274-9307

Copies for non-DOD agencies or users can be obtained from:

National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161

Phone: (703)-487-4650  
Fax: (703)-321-8547

Refer to the following numbers when ordering:

<u>Year</u>	<u>Acquisition Number</u>	<u>Year</u>	<u>Acquisition Number</u>	<u>Year</u>	<u>Acquisition Number</u>
1959	AD 786147	1971	AD 768333	1983	AD A137836
1960	AD 786148	1972	AD 768334	1984	AD A153395
1961	AD 786149	1973	AD 777093	1985	AD A168284
1962	AD 786128	1974	AD 010271	1986	AD A184082
1963	AD 786208	1975	AD A023601	1987	AD A191883
1964	AD 786209	1976	AD A038484	1988	AD A207206
1965	AD 786210	1977	AD A055512	1989	AD A232469
1966	AD 785891	1978	AD A070904	1990	AD A239910
1967	AD 785344	1979	AD A082071	1991	AD A251952
1968	AD 785251	1980	AD A094668	1992	AD A274464
1969	AD 785178	1981	AD A112002	1993	AD A285097
1970	AD 785252	1982	AD A124860		

## APPENDIX E DISTRIBUTION LIST

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8a. NAME OF FUNDING / SPONSORING ORGANIZATION NAVPACMETOCENWEST/JTWC		8b. OFFICE SYMBOL (if applicable)		10. SOURCE OF FUNDING NUMBERS	
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11. TITLE (Include Security Classification) 1994 ANNUAL TROPICAL CYCLONE REPORT					
12. PERSONAL AUTHOR(S)					
13a. TYPE OF REPORT ANNUAL		13b. TIME COVERED FROM JAN 94 TO DEC 94		14. DATE OF REPORT (Year, Month, Day) 1994	15. PAGE COUNT 337 plus i - vi
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	TROPICAL CYCLONES		
04	02		TROPICAL STORMS		
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