

CHAPTER 4

NATIONAL WEATHER SERVICE PRODUCTS FOR THE DEPARTMENT OF DEFENSE

4.1. General. The Department of Defense (DOD) and the Department of Commerce (DOC) weather forecasting, reconnaissance, and distribution agencies share technical information and some responsibilities. Mutually supportive relationships have developed over the years and have resulted in a mutual dependency. Due to the nature and distribution of DOD resources and operations, the DOD requires certain meteorological information beyond that available to the general public. Accordingly, the DOC provides DOD with special observations and advisories on tropical and subtropical storms threatening DOD resources or operations.

4.2. Observations. The National Hurricane Center (NHC) and Central Pacific Hurricane Center (CPHC) will make available to DOD all significant tropical and subtropical cyclone observations that they receive.

4.3. Tropical Cyclone Forecast/Advisories.

4.3.1. General. The NHC and CPHC will provide to DOD forecasts and related information for tropical and subtropical weather disturbances of depression intensity or greater. Forecasts will include location, movement, intensity, and dimension of the disturbances. Tropical cyclone forecast/advisories will be disseminated through the National Weather Service (NWS) communications facility at Suitland, MD, to the Automatic Digital Weather Switch (ADWS) hub at Tinker AFB, OK, for further relay to DOD agencies. The DOD forecasters, who must give advice concerning an imminent operational decision, may contact the appropriate hurricane center forecaster (see Chapter 2) when published tropical cyclone forecast/advisories require elaboration. Telephone numbers for the hurricane centers are in Appendix I.

4.3.2. Tropical Cyclone Forecast/Advisory Issue Frequency. The first tropical cyclone forecast/advisory will normally be issued when meteorological data indicate that a tropical or subtropical cyclone has formed. Subsequent advisories will be issued at 0300, 0900, 1500, and 2100 UTC from NHC and CPHC. The public advisory from the NWS Forecast Office Tiyan, Guam, will be issued at the same time. Advisories will continue to be issued until the system is classified below the depression intensity level. In addition, special forecasts will be issued whenever the following criteria are met:

A significant change has occurred, requiring the issuance of a revised forecast package.

Conditions require a hurricane or tropical storm watch or warning to be issued.

Remarks stating the reason for the special forecast or the relocation will be mandatory in all special forecasts or advisories that include a relocated position.

[NOTE: Tropical cyclone updates are permitted without the requirement of a special forecast, including when coastal warnings are cancelled. However, in some cases, a special forecast may follow.]

4.3.3. Tropical Cyclone Forecast/Advisory Content. Tropical cyclone forecast/ advisories issued by the NHC and CPHC will contain appropriate information as shown in Figure 4-1. Tropical cyclone public advisories issued by the NWS Forecast Office, Tiyan, Guam, will contain appropriate information as shown in Figure 4-2. The forecast will contain 12, 24, 36, 48, and 72-hour forecast positions. A code string is appended at the end of the line "NATIONAL WEATHER SERVICE MIAMI FL." This is the Automated Tropical Cyclone System (ATCF) Storm Identification Character String recognized by the WMO for tracking and verification of tropical cyclones. The ATCF storm identifier is three spaces after "FL" and uses the format below.

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NATIONAL WEATHER SERVICE MIAMI FL  BSNOYR
where:  BS is the basin (AL, EP, or CP)
        NO is the storm number (01, 02, 03,...99)
        YR is the last two digits of the year.
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4.3.4. Numbering of Tropical Cyclone Forecast/Advisories. All tropical cyclone forecast/advisories will be numbered sequentially; e.g.,

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Tropical Depression ONE Forecast/Advisory Number 1
Tropical Depression ONE Forecast/Advisory Number 2
Tropical Storm Anita Forecast/Advisory Number 3
Hurricane (Typhoon) Anita Forecast/Advisory Number 4
Tropical Depression Anita Forecast/Advisory Number 5
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ZCZC NHCTCMAT3 ALL
TTAAOO KNHC DDHHMM
HURRICANE BOB FORECAST/ADVISORY NUMBER 12
NATIONAL WEATHER SERVICE MIAMI FL AL0291
2200Z SUN AUG 18 1991

AT 6 PM EDT...HURRICANE WARNINGS ARE EXTENDED NORTH AND EASTWARD FROM CAPE HENLOPEN DELAWARE THROUGH PLYMOUTH MASSACHUSETTS. THE WARNING AREA INCLUDES LONG ISLAND...LONG ISLAND SOUND...CONNECTICUT EAST OF NEW HAVEN...AND CAPE COD. HURRICANE WARNINGS NOW EXTEND FROM LITTLE RIVER INLET NORTH CAROLINA TO PLYMOUTH MASSACHUSETTS.

TROPICAL STORM WARNINGS ARE EXTENDED TO INCLUDE DELAWARE BAY...AND CONTINUE FOR THE LOWER CHESAPEAKE BAY SOUTH OF THE MOUTH OF PATUXENT RIVER INCLUDING THE GREATER NORFOLK AREA. A HURRICANE WATCH IS ALSO ISSUED NORTHWARD FROM PLYMOUTH MASSACHUSETTS THROUGH EASTPORT MAINE.

CENTER LOCATED NEAR 33.9N 76.0W AT 18/2200Z
POSITION ACCURATE WITHIN 20NM

CURRENT MOTION TOWARD THE NORTH OR 010 DEGREES AT 16 KT

SYNOPTIC CENTER LOCATED NEAR 33.6N 75.9W AT 18/1800Z

DIAMETER OF EYE 20NM
MAX WINDS 100KT...GUSTS 120 KT
64 KT.....100NE 100SE 25SW 25NW WIND RADII IN NM
50 KT.....125NE 125SE 50SW 50NW
34 KT.....150NE 150SE 75SW 75NW
12 FT SEAS 150NE 150SE 75SW 75NW

FORECAST VALID 19/0600Z 36.5N 74.5W
MAX WND 100 KT...GUSTS 120 KT
64 KT...100NE 100SE 25SW 25NW
50 KT...125NE 125SE 50SW 50NW
34 KT...150NE 150SE 75SW 75NW

FORECAST VALID 19/1800Z 41.0N 71.0W
MAX WND 100 KT...GUSTS 120 KT
64 KT...100NE 100SE 25SW 25NW
50 KT...125NE 125SE 50SW 50NW
34 KT...150NE 150SE 75SW 75NW

FORECAST VALID 20/0600Z 46.0N 66.0W
MAX WND 90 KT...GUSTS 105 KT
64 KT... 75NE 75SE 25SW 25NW
50 KT...125NE 125SE 50SW 50NW
34 KT...150NE 150SE 75SW 75NW

STORM SURGE OF 4 TO 7 FEET ABOVE NORMAL TIDE IS POSSIBLE IN THE WARNED AREA OF NORTH CAROLINA AND 3 TO 5 FEET IN THE REMAINDER OF THE WARNED AREA. IN ADDITION...LARGE WAVES WITH BEACH EROSION WILL BE EXPERIENCED IN THE WARNED AREAS.

REQUEST FOR 3 HOURLY SHIP REPORTS WITHIN 300 MILES OF 33.9N 76.0W
EXTENDED OUTLOOK...USE FOR GUIDANCE ONLY...ERRORS MAY BE LARGE
OUTLOOK VALID 20/1800Z 50.5N 60.0W
MAX WINDS 70 KT...GUSTS 85 KT
50 KT...125NE 125SE 50SW 50NW

OUTLOOK VALID 21/1800Z 56.0N 47.0W
MAX WINDS 60 KT...GUSTS 75 KT
50 KT...125NE 125SE 50SW 50NW

NEXT ADVISORY AT 19/0300Z

Figure 4-1. Tropical cyclone forecast/advisory format

BULLETIN
TYPHOON DALE PUBLIC ADVISORY NUMBER 20
NATIONAL WEATHER SERVICE TIYAN GUAM

300 PM LST THU NOV 07 1996

...A TYPHOON WARNING REMAINS IN EFFECT FOR GUAM AND ROTA..
...A TYPHOON WATCH REMAINS IN EFFECT FOR TINIAN AND SAIPAN..
...A TYPHOON WATCH IS NOW IN EFFECT FOR ULITHI

AT 1 PM GUAM TIME...TYPHOON DALE AS LOCATED NEAR 11.2N 147.5E OR ABOUT 235 STATUTE MILES SOUTHEAST OF GUAM AND 250 STATUTE MILES SOUTHEAST OF ROTA... AND ABOUT 300 STATUTE MILES SOUTH-SOUTHEAST OF SAIPAN.

MAXIMUM SUSTAINED WINDS WERE 75 MPH WITH GUSTS 90 MPH NEAR THE CENTER OF DALE. TYPHOON DALE IS MOVING WEST AT 10 MPH WHICH IS SLIGHTLY SLOWER THAN EARLIER MOVEMENT.

TYPHOON DALE IS FORECAST TO PASS SOUTH OF GUAM FRIDAY MORNING BRINGING DESTRUCTIVE WINDS TO GUAM FROM 1 AM FRIDAY THROUGH 7 AM FRIDAY. CLOSEST POINT OF APPROACH TO GUAM IS NOW EXPECTED AT 5 AM FRIDAY MORNING WHEN TYPHOON DALE PASSES 115 STATUTE MILES SOUTH OF GUAM. ALTHOUGH TYPHOON DALE IS NOW FORECAST TO PASS FURTHER SOUTH THAN PREVIOUSLY EXPECTED...SATELLITE DATA INDICATES THE 60 MPH WINDS HAVE EXPANDED OUTWARD FROM THE CENTER AND HENCE WILL STILL AFFECT GUAM. CLOUDY SKIES WITH HEAVY SHOWERS AND THUNDERSHOWERS CAN BE EXPECTED ON ALL ISLANDS FROM GUAM NORTHWARD TO SAIPAN.

FORECAST FOR GUAM...

THIS AFTERNOON...WINDS NORTHEAST 25 TO 30 MPH WITH GUSTS TO 40 MPH.
TONIGHT...WINDS NORTHEAST 30 TO 35 MPH WITH GUSTS TO 60 MPH INCREASING TO 50 TO 60 MPH WITH GUSTS TO 75 MPH AFTER 1 AM. MAXIMUM WINDS WILL BE EASTERLY 60 TO 65 MPH WITH GUSTS TO 85 MPH AS DALE MAKES IT CLOSEST POINT OF APPROACH. .FRIDAY...WINDS SOUTHEAST SLOWLY DECREASING TO 30 TO 40 MPH WITH GUSTS TO 60 MPH FRIDAY AFTERNOON.

FORECAST FOR ROTA...

THIS AFTERNOON WINDS NORTHEAST 20 TO 25 MPH WITH GUSTS TO 35 MPH.
TONIGHT WINDS NORTHEAST 30 TO 40 MPH WITH GUSTS TO 50 MPH. MAXIMUM WINDS EAST 45 TO 50 MPH WITH GUSTS TO 60 MPH EARLY FRIDAY MORNING AS DALE PASSES SOUTH OF ROTA.
FRIDAY WINDS SOUTHEAST SLOWLY DECREASING TO 30 TO 40 MPH WITH GUSTS TO 40 MPH FRIDAY AFTERNOON.

CIVIL DEFENSE OFFICIALS URGE ALL RESIDENTS TO STAY AWAY FROM BEACHES AND REEFS DUE TO VERY HAZARDOUS SURF CONDITIONS AND STRONG TREACHEROUS CURRENTS. GUAM WILL BE PARTICULARLY VULNERABLE TO HIGH SURF ESPECIALLY ON NORTHEAST THROUGH SOUTHEAST EXPOSURES. SEAS VERY ROUGH 13 TO 15 FEET WITH SURF VERY HAZARDOUS 14 TO 20 FEET. LOW LEVEL FLOODING ALONG SHORELINE ROADS ARE EXPECTED DUE TO HIGH SEAS AND SURF.

RESIDENTS OF THE MARIANAS SHOULD CONTINUE TO MONITOR OFFICIAL NATIONAL WEATHER SERVICE BULLETINS AND STAY TUNED TO NOAA WEATHER RADIO AND LOCAL MEDIA SOURCES FOR UPDATED INFORMATION. ON GUAM NOAA WEATHER RADIO IS BROADCAST ON 162.4 MEGAHERTZ AND AVAILABLE BY DIALING 711 OR 477-2991.

THE NEXT SCHEDULED BULLETIN WILL ISSUED AT 8 PM THURSDAY GUAM TIME OR SOONER IF NECESSARY.

Figure 4-2. Tropical cyclone public advisory format