WDPN31 PGTW 061500
MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//
SUBJ/PROGNOSTIC REASONING FOR SUPER TYPHOON 02W (NEPARTAK)
WARNING NR 15//
RMKS//

- 1. FOR METEOROLOGISTS.
- 2. 6 HOUR SUMMARY AND ANALYSIS.

SUPER TYPHOON 02W (NEPARTAK), LOCATED APPROXIMATELY 419 NM SOUTHEAST OF TAIPEI, TAIWAN, HAS TRACKED WEST-NORTHWESTWARD AT 16 KNOTS OVER THE PAST SIX HOURS. THE CURRENT POSITION IS BASED ON RECENT SATELLITE EYE FIXES FROM PGTW AND RJTD AND A 061001Z SSMIS IMAGE, WITH HIGH CONFIDENCE. THE INTENSITY OF 150 KNOTS IS CONSISTENT WITH SUBJECTIVE DVORAK INTENSITY ESTIMATES FROM MULTIPLE REPORTING AGENCIES AS WELL AS RECENT OBJECTIVE SATELLITE INTENSITY CONSENSUS DATA. STY 02W HAS MAINTAINED INTENSITY OVER THE PAST SIX HOURS, AIDED BY LOW VERTICAL WIND SHEAR, PASSAGE OVER VERY WARM WATER, AND VIGOROUS DUAL-CHANNEL OUTFLOW ALOFT. THE CONVECTIVE STRUCTURE NOW RESEMBLES AN ANNULAR CYCLONE, WITH A STRONG CORE OF CONVECTION AND MINIMAL CONVECTIVE BANDING EVIDENT IN RECENT INFRARED SATELLITE IMAGERY. STY 02W CONTINUES TO TRACK QUICKLY WEST-NORTHWESTWARD ALONG THE PERIPHERY OF A DEEP-LAYERED SUBTROPICAL STEERING RIDGE.

## 3. FORECAST REASONING.

- A. THE FORECAST TRACK HAS SHIFTED VERY SLIGHTLY TO THE SOUTH AND WEST OF THE PREVIOUS FORECAST BASED ON TRENDS IN NUMERICAL MODEL TRACK FORECAST GUIDANCE AND CURRENT ANALYSIS OF THE STEERING RIDGE ORIENTATION. MORE RAPID WEAKENING IS EXPECTED IN THE EXTENDED FORECAST PERIOD, LEADING TO DISSIPATION BY TAU 96.
- B. STY 02W WILL CONTINUE TRACKING GENERALLY WEST-NORTHWESTWARD TOWARD CENTRAL TAIWAN ALONG THE PERIPHERY OF THE CURRENT STEERING RIDGE OVER THE NEXT 24 TO 36 HOURS. WHILE NUMERICAL GUIDANCE SUGGESTS A SMALL DIP IN INTENSITY OVER THE NEXT DAY OR SO, FAVORABLE ENVIRONMENTAL CONDITIONS AND THE PRESENTLY-OBSERVED ANNULAR CONVECTIVE STRUCTURE WILL LIMIT THE POTENTIAL FOR SIGNIFICANT WEAKENING PRIOR TO LANDFALL. HOWEVER, THE SYSTEM WILL WEAKEN RAPIDLY AS IT CROSSES TAIWAN BETWEEN TAU 36 AND TAU 48, AND AGAIN AS IT PROGRESSES INTO MAINLAND CHINA AFTER TAU 48. THE CIRCULATION IS EXPECTED TO TURN POLEWARD AND MOVE FURTHER INLAND AS IT ROUNDS THE STEERING RIDGE AXIS AFTER TAU 48. WHILE NUMERICAL MODEL GUIDANCE HAS SHIFTED SLIGHTLY, IT IS IN GOOD OVERALL AGREEMENT IN THE NEAR-TERM, LENDING HIGH CONFIDENCE TO THAT PORTION OF THE TRACK FORECAST.
- C. IN THE EXTENDED PERIOD, STY 02W WILL CONTINUE TRACKING OVER LAND AS IT ROUNDS THE STEERING RIDGE AXIS. DISSIPATION IS NOW EXPECTED TO OCCUR BY TAU 96. NUMERICAL MODELS CONTINUE TO DIFFER REGARDING THE SPEED AND TIGHTNESS OF THE POLEWARD TURN BUT HAVE CONVERGED SUFFICIENTLY TO LEND HIGH CONFIDENCE TO THE EXTENDED FORECAST TRACK.//