

APPENDIX D

**OWI Model Sample Files –
PRE/WIN Format**

APPENDIX PBL-C WIN/PRE File Format

Oceanweather WIN and PRE File Formats

Winds and pressure data formats are similar. The header format is the same, but in the wind file the header is followed by U then V components while in the pressure file the header is followed by just pressures. The file begins with a header indicating the starting and ending dates and is followed by a grid/date header for each time step and the u and v components of the wind in meters/second or pressures in millibars. Starting/Ending dates are in YYYYMMDDHH format where:

YYYY Year

MM Month

DD Day

HH Hour

Example win:

OWI WWS Wind Output Ucomp,Vcomp in m/s Start:1995060600 End:1995060600

iLat= 67iLong= 67DX= 1.250DY= .833SWLat= 22.500SWLon= -82.500Dt=199506060000

-1.16856 -1.06439 -.84875 -1.03460 -1.50047 -2.09462 -2.80243 -3.55863

-4.24125 -4.84273 -5.59486 -5.37088 -5.30224 -5.12534 -4.89537 -4.67412

-4.49203 -4.35772 -4.26612 -4.20260 -4.14746 -4.08396 -4.00686 -3.92213

-3.83615 -3.74765 -3.65182 -3.54998 -3.45299 -3.37660 -3.32959 -3.28037

-3.10631 -2.67723 -2.08363 -1.53773 -1.12623 -.83526 -.62870 -.47371

[rest deleted]

iLat is the number of parallels

iLong is the number of meridians

DX is the grid spacing in degrees of longitude

DY is the grid spacing in degrees of latitude

SWLat is the latitude of the South West corner

SWlon is the longitude of the South West corner

Dt is the date/time in YYYYMMDDHHmm (same as master header date format but with mm Minutes as well)

*The number of grid points is iLat*iLong, the u component of the winds in meters/second is followed by the v component.*

Wind Speed/Meteorological Wind Direction can be computed from the u/v components as follows:

$$WS = \text{sqrt}(uu(iLong,iLat)**2 + vv(iLong,iLat)**2)$$

$$WDIR = \text{mod}(180.+atan2d(UU(iLong,iLat),VV(iLong,iLat)),360.)$$