FORM TO SPECIFY INPUT DATA FOR
WIND-VELOCITY MODEL WTIDE

This subroutine represents the wind field of the atmospheric tides by zonal and meridional height profiles that are sinusoidal and in phase quadrature. The profiles progress downward with time, giving a corkscrew effect:

$$u_\theta = U_{\theta o} \sin \left\{2\pi \left(\frac{z}{\lambda_z} + \frac{t}{\tau}\right)\right\}$$

$$u_\phi = U_{\phi o} \cos \left\{2\pi \left(\frac{z}{\lambda_z} + \frac{t}{\tau}\right)\right\}$$

$z = r - r_e$, where r_e is the Earth radius, and r is the radial coordinate of the ray point.

Specify--

the model check for WTIDE = 5.0 (W100)

the input data-format code = _____(W101)

an input data-set identification number = _____(W102)

an 80-character description of the model, including description of parameter values:

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the amplitude of the meridional component, $U_{\theta o}$ = _____km/s, m/s (W104)

the amplitude of the zonal component, $U_{\phi o}$ = _____km/s, m/s (W103)

the vertical wavelength, λ_z = _____km (W105)

the time in wave periods, t/τ = _____(W106)

the wave period, τ = _____sec (W107)

(The Earth's poles should be avoided in ray calculations because discontinuities appear there.)

OTHER MODELS REQUIRED: Any wind-perturbation model. Use NPWIND if no perturbation is desired.