FORM TO SPECIFY INPUT DATA FOR
ATMOSPHERIC TEMPERATURE-PERTURBATION MODEL TBLOB2

An increase (or decrease) in temperature in a localized region that decays in a Gaussian manner in all three spatial directions.

$$T(r,\theta,\phi) = T_o(r,\theta,\phi)\ \{1 + \Delta\ \exp\ [-(\frac{z-z_o}{W_z})^2 - (\frac{\theta-\theta_o}{W_\theta})^2 - (\frac{\phi-\phi_o}{W_\phi})^2]\}$$

$T_o(r,\theta,\phi)$ is the temperature specified by a temperature model. (r,θ,ϕ) are the coordinates of the ray point in an Earth-centered spherical polar coordinate system. $\theta_o = \pi/2 - \lambda_o$ and $z = r - r_e$, where r_e is the Earth radius. Specify--

the model check for subroutine TBLOB2 = 2.0 (W225)

the input data-format code = _____ (W226)

an input data-set identification number = _____ (W227)

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

_____

the strength of the increase (or decrease), Δ = _____ (W228)

the height of maximum effect, z_o = _____ km (W229)

the latitude of maximum effect, λ_o = _____ rad, deg, km N (W230)

the longitude of maximum effect, ϕ_o = _____ rad, deg, km E (W231)

the Gaussian width in height of the effect, W_z = _____ km (W232)*

the meridional width of the effect, W_θ = _____ rad, deg, km (W233)*

the zonal width of the effect, W_ϕ = _____ rad, deg, km (W234)*

OTHER MODELS REQUIRED: none.

* Setting W_z, W_θ, or W_ϕ = zero results in no space variation in that direction.