------- InflowWind v3.01.\* INPUT FILE -------------------------------------------------------------------------

12 m/s turbulent winds on 31x31 FF grid and tower for FAST CertTests #18, #19, #21, #22, #23, and #24

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False Echo - Echo input data to <RootName>.ech (flag)

3 WindType - switch for wind file type (1=steady; 2=uniform; 3=binary TurbSim FF; 4=binary Bladed-style FF; 5=HAWC format; 6=User defined)

0 PropagationDir - Direction of wind propagation (meteoroligical rotation from aligned with X (positive rotates towards -Y) -- degrees)

1 NWindVel - Number of points to output the wind velocity (0 to 9)

0 WindVxiList - List of coordinates in the inertial X direction (m)

0 WindVyiList - List of coordinates in the inertial Y direction (m)

90 WindVziList - List of coordinates in the inertial Z direction (m)

================== Parameters for Steady Wind Conditions [used only for WindType = 1] =========================

0 HWindSpeed - Horizontal windspeed (m/s)

90 RefHt - Reference height for horizontal wind speed (m)

0.2 PLexp - Power law exponent (-)

================== Parameters for Uniform wind file [used only for WindType = 2] ============================

"Step-Wind.wnd" Filename - Filename of time series data for uniform wind field. (-)

90 RefHt - Reference height for horizontal wind speed (m)

125.88 RefLength - Reference length for linear horizontal and vertical sheer (-)

================== Parameters for Binary TurbSim Full-Field files [used only for WindType = 3] ==============

"Turbsim\_Hydro.bts" Filename - Name of the Full field wind file to use (.bts)

================== Parameters for Binary Bladed-style Full-Field files [used only for WindType = 4] =========

"Wind/90m\_12mps\_twr" FilenameRoot - Rootname of the full-field wind file to use (.wnd, .sum)

False TowerFile - Have tower file (.twr) (flag)

================== Parameters for HAWC-format binary files [Only used with WindType = 5] =====================

"wasp\Output\basic\_5u.bin" FileName\_u - name of the file containing the u-component fluctuating wind (.bin)

"wasp\Output\basic\_5v.bin" FileName\_v - name of the file containing the v-component fluctuating wind (.bin)

"wasp\Output\basic\_5w.bin" FileName\_w - name of the file containing the w-component fluctuating wind (.bin)

64 nx - number of grids in the x direction (in the 3 files above) (-)

32 ny - number of grids in the y direction (in the 3 files above) (-)

32 nz - number of grids in the z direction (in the 3 files above) (-)

16 dx - distance (in meters) between points in the x direction (m)

3 dy - distance (in meters) between points in the y direction (m)

3 dz - distance (in meters) between points in the z direction (m)

90 RefHt - reference height; the height (in meters) of the vertical center of the grid (m)

------------- Scaling parameters for turbulence ---------------------------------------------------------

1 ScaleMethod - Turbulence scaling method [0 = none, 1 = direct scaling, 2 = calculate scaling factor based on a desired standard deviation]

1 SFx - Turbulence scaling factor for the x direction (-) [ScaleMethod=1]

1 SFy - Turbulence scaling factor for the y direction (-) [ScaleMethod=1]

1 SFz - Turbulence scaling factor for the z direction (-) [ScaleMethod=1]

12 SigmaFx - Turbulence standard deviation to calculate scaling from in x direction (m/s) [ScaleMethod=2]

8 SigmaFy - Turbulence standard deviation to calculate scaling from in y direction (m/s) [ScaleMethod=2]

2 SigmaFz - Turbulence standard deviation to calculate scaling from in z direction (m/s) [ScaleMethod=2]

------------- Mean wind profile parameters (added to HAWC-format files) ---------------------------------

18 URef - Mean u-component wind speed at the reference height (m/s)

2 WindProfile - Wind profile type (0=constant;1=logarithmic,2=power law)

0.2 PLExp - Power law exponent (-) (used for PL wind profile type only)

0.03 Z0 - Surface roughness length (m) (used for LG wind profile type only)

====================== OUTPUT ==================================================

False SumPrint - Print summary data to <RootName>.IfW.sum (flag)

OutList - The next line(s) contains a list of output parameters. See OutListParameters.xlsx for a listing of available output channels, (-)

"Wind1VelX" X-direction wind velocity at point WindList(1)

"Wind1VelY" Y-direction wind velocity at point WindList(1)

"Wind1VelZ" Z-direction wind velocity at point WindList(1)

END of input file (the word "END" must appear in the first 3 columns of this last OutList line)

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