TurbSim Input File. Valid for TurbSim v1.06.00, 21-Sep-2012

---------Runtime Options-----------------------------------

2318573 RandSeed1 - First random seed (-2147483648 to 2147483647)

RANLUX RandSeed2 - Second random seed (-2147483648 to 2147483647) for intrinsic pRNG, or an alternative pRNG: "RanLux" or "RNSNLW"

False WrBHHTP - Output hub-height turbulence parameters in binary form? (Generates RootName.bin)

False WrFHHTP - Output hub-height turbulence parameters in formatted form? (Generates RootName.dat)

False WrADHH - Output hub-height time-series data in AeroDyn form? (Generates RootName.hh)

True WrADFF - Output full-field time-series data in TurbSim/AeroDyn form? (Generates Rootname.bts)

True WrBLFF - Output full-field time-series data in BLADED/AeroDyn form? (Generates RootName.wnd)

False WrADTWR - Output tower time-series data? (Generates RootName.twr)

False WrFMTFF - Output full-field time-series data in formatted (readable) form? (Generates RootName.u, RootName.v, RootName.w)

False WrACT - Output coherent turbulence time steps in AeroDyn form? (Generates RootName.cts, should not be used for Hydro spectral models, ie 'TIDAL')

True Clockwise - Clockwise rotation looking downwind? (used only for full-field binary files - not necessary for AeroDyn)

0 ScaleIEC - Scale IEC turbulence models to exact target standard deviation? [0=no additional scaling; 1=use hub scale uniformly; 2=use individual scales]

--------Turbine/Model Specifications-----------------------

13 NumGrid\_Z - Vertical grid-point matrix dimension

13 NumGrid\_Y - Horizontal grid-point matrix dimension

0.05 TimeStep - Time step [seconds]

600 AnalysisTime - Length of analysis time series [seconds] (program will add time if necessary: AnalysisTime = MAX(AnalysisTime, UsableTime+GridWidth/MeanHHWS) )

400 UsableTime - Usable length of output time series [seconds] (program will add GridWidth/MeanHHWS seconds)

90 HubHt - Hub height [m] (should be > 0.5\*GridHeight)

138.6 GridHeight - Grid height [m]

138.6 GridWidth - Grid width [m] (should be >= 2\*(RotorRadius+ShaftLength))

0 VFlowAng - Vertical mean flow (uptilt) angle [degrees]

0 HFlowAng - Horizontal mean flow (skew) angle [degrees]

--------Meteorological Boundary Conditions-------------------

"TIDAL" TurbModel - Turbulence model ("IECKAI"=Kaimal, "IECVKM"=von Karman, "GP\_LLJ", "NWTCUP", "SMOOTH", "WF\_UPW", "WF\_07D", "WF\_14D", "TIDAL", or "NONE")

"1-ED3" IECstandard - Number of IEC 61400-x standard (x=1,2, or 3 with optional 61400-1 edition number (i.e. "1-Ed2") )

"B" IECturbc - IEC turbulence characteristic ("A", "B", "C" or the turbulence intensity in percent) ("KHTEST" option with NWTCUP model, not used for other models)

"NTM" IEC\_WindType - IEC turbulence type ("NTM"=normal, "xETM"=extreme turbulence, "xEWM1"=extreme 1-year wind, "xEWM50"=extreme 50-year wind, where x=wind turbine class 1, 2, or 3)

default ETMc - IEC Extreme Turbulence Model "c" parameter [m/s]

"H2L" WindProfileType - Wind profile type ("JET";"LOG"=logarithmic;"PL"=power law;"H2L"=Log law for TIDAL spectral model;"IEC"=PL on rotor disk, LOG elsewhere; or "default")

90 RefHt - Height of the reference velocity (URef) [m]

18 URef - Mean (total) velocity at the reference height [m/s] (or "default" for JET wind profile)

default ZJetMax - Jet height [m] (used only for JET wind profile, valid 70-490 m)

default PLExp - Power law exponent [-] (or "default")

default Z0 - Surface roughness length [m] (or "default")

--------Non-IEC Meteorological Boundary Conditions------------

default Latitude - Site latitude [degrees] (or "default")

0.05 RICH\_NO - Gradient Richardson number

default UStar - Friction or shear velocity [m/s] (or "default")

default ZI - Mixing layer depth [m] (or "default")

default PC\_UW - Hub mean u'w' Reynolds stress (or "default")

default PC\_UV - Hub mean u'v' Reynolds stress (or "default")

default PC\_VW - Hub mean v'w' Reynolds stress (or "default")

default IncDec1 - u-component coherence parameters (e.g. "10.0 0.3e-3" in quotes) (or "default")

default IncDec2 - v-component coherence parameters (e.g. "10.0 0.3e-3" in quotes) (or "default")

default IncDec3 - w-component coherence parameters (e.g. "10.0 0.3e-3" in quotes) (or "default")

default CohExp - Coherence exponent (or "default")

--------Coherent Turbulence Scaling Parameters-------------------

"/home/lkilcher/work/nwtc/turbsim/trunk/Test/EventData/" CTEventPath - Name of the path where event data files are located

"Random" CTEventFile - Type of event files ("LES", "DNS", or "RANDOM")

true Randomize - Randomize the disturbance scale and locations? (true/false)

1.0 DistScl - Disturbance scale (ratio of wave height to rotor disk). (Ignored when Randomize = true.)

0.5 CTLy - Fractional location of tower centerline from right (looking downwind) to left side of the dataset. (Ignored when Randomize = true.)

0.5 CTLz - Fractional location of hub height from the bottom of the dataset. (Ignored when Randomize = true.)

30.0 CTStartTime - Minimum start time for coherent structures in RootName.cts [seconds]

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NOTE: Do not add or remove any lines in this file!

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