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&time_control
Run_days           = 0,
run_hours          = 0,
run_minutes        = 01,
run_seconds        = 00,
start_year         = 2017, 2017, 2017, 2017,
start_month        = 09, 09, 09, 09,
start_day          = 07, 07, 07, 07,
start_hour         = 00, 00, 00, 06,
start_minute       = 00, 00, 00, 00,
start_second       = 00, 00, 00, 00,
end_year           = 2017, 2017, 2017, 2017,
end_month          = 09, 09, 09, 09,
end_day            = 07, 07, 07, 07,
end_hour           = 18, 18, 18, 18,
end_minute         = 00, 00, 00, 00,
end_second         = 00, 00, 00, 00,
interval_seconds   = 10800
input_from_file    = .true.,.False.,.false.,.false.,
history_interval   = 180, 10, 10, 10,
frames_per_outfile = 1, 1, 1, 1,
restart            = .False,
restart_interval   = 60,
override_restart_timers = .True.,
io_form_history    = 2,
io_form_restart    = 2,
io_form_input      = 2,
io_form_boundary   = 2,
debug_level        = 0,
/

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&domains
time_step          = 20,
time_step_fract_num = 0,
time_step_fract_den = 1,
use_adaptive_time_step = .True.,
step_to_output_time = .true.,
target_cfl         = 1.0, 1.0,1.0,1.0,
target_hcfl        = .84, .84,0.84,0.84,
max_step_increase_pct = 0, 5,5,5,
starting_time_step = 20, 7, 2, 2,
adaptation_domain  = 1,
max_dom            = 2,
s_we               = 1, 1, 1, 1,
e_we               = 451,604, 901, 901, 601,
s_sn               = 1, 1, 1, 1,
e_sn               = 451,604, 901, 901, 601,
s_vert             = 1, 1, 1, 1,
e_vert             = 51, 51, 51, 51,
p_top_requested    = 5000,
num_metgrid_soil_levels = 4,
num_metgrid_levels = 32,
dx                 = 4000,1333.33, 444.444, 1000,
dy                 = 4000,1333.33, 444.444, 1000,

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grid_id           = 1, 2, 3, 4, 5,
parent_id        = 0, 1, 2, 3, 4,
i_parent_start   = 0, 130, 160, 160, 50,
j_parent_start   = 0, 130, 180, 180, 50,
parent_grid_ratio = 1, 3, 3, 3,
parent_time_step_ratio = 1, 3, 3, 3,
feedback         = 1,
smooth_option    = 0,
vert_refine_method = 0, 0,
wif_input_opt    = 1,
/

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&physics
physics_suite    = 'CONUS'
mp_physics       = 30, 30, 30, 30,
scalar_pblmix    = 1, 1, 1, 1,
tracer_pblmix    = 1, 1, 1, 1,
dust_emis        = 1,
erosion_dim      = 3,
ra_lw_physics    = 4, 4, 4, 4,
ra_sw_physics    = 4, 4, 4, 4,
radt             = 24, 8, 5, 3,
sf_sfclay_physics = 2, 2, 2, 2,
sf_surface_physics = 2, 2, 2, 2,
bl_pbl_physics   = 2, 2, 2, 2,
bldt             = 0, 0, 0, 0,
cu_physics       = 0, 0, 0, 0,
cudt             = 60, 5, 5, 5,
isfflx          = 1,
ifsnow          = 0,
icloud          = 1,
surface_input_source = 1,
num_soil_layers = 4,
sf_urban_physics = 0, 0, 0, 0,
sst_update      = 0
usemonalb       = .true.
rdmaxalb        = .true.
rdlai2d         = .false.
do_radar_ref    = 1,
sbm_diagnostics = 1,1,1,1
NUM_LAND_CAT    = 21,
scalar_pblmix    = 1, 1, 1, 1,
tracer_pblmix    = 1, 1, 1, 1,
aer_opt         = 3,
/

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&fdda
grid_fdda        = 1, 0, 0, 0,
gfdda_inname     = "wrffdda_d<domain>" ,
gfdda_interval_m = 360, 000, 000, 000,
gfdda_end_h      = 36, 0, 0, 0,
io_form_gfdda    = 2,
fgdt             = 0, 0, 0, 0,

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if_no_pbl_nudging_uv      = 0,      1,      1,      1,
if_no_pbl_nudging_t      = 0,      1,      1,      1,
if_no_pbl_nudging_q      = 0,      1,      1,      1,
if_zfac_uv                = 1,      1,      1,      1,
  k_zfac_uv                = 1,     10,     10,     10,
if_zfac_t                 = 1,      1,      1,      1,
  k_zfac_t                 = 1,     10,     10,     10,
if_zfac_q                 = 1,      1,      1,      1,
  k_zfac_q                 = 1,     10,     10,     10,
guv                       = 0.0003, 0.0003, 0.0003, 0.0003,
gt                        = 0.0003, 0.0003, 0.0003, 0.0003,
gq                        = 0.0003, 0.0003, 0.0003, 0.0003,
if_ramping                = 0,
dtramp_min                = 60.0,
/

&dynamics
hybrid_opt                = 2,
w_damping                 = 1,
diff_opt                  = 1,      1,      1,      1,
km_opt                    = 4,      4,      4,      4,
diff_6th_opt              = 2,      2,      2,      2,
diff_6th_factor           = 0.12,   0.12,   0.12,   0.12,
diff_6th_slopeopt        = 1,1,1,1,
w_crit_cfl                = 1.0
base_temp                 = 290.
damp_opt                  = 1,
zdamp                     = 5000., 5000., 5000., 5000.,
dampcoef                  = 0.01,   0.01,   0.01,   0.01,
khdif                     = 0,      0,      0,      0,
kvdif                     = 0,      0,      0,      0,
non_hydrostatic           = .true., .true., .true., .true.,
moist_adv_opt             = 2,      2,      2,      2,
scalar_adv_opt            = 2,      2,      2,      2,
/

&bdy_control
spec_bdy_width            = 5,
spec_zone                 = 1,
relax_zone                = 4,
specified                 = .true., .false.,.false.,.false.,
have_bcs_scalar           = .true., .false.,.false.,.false.,
nested                    = .false., .true., .true.,.true.,
/

&grib2
/

&namelist_quilt
nio_tasks_per_group = 0,
nio_groups = 1,
/

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