Sample GFS Warm Restart Files
Required for Running Forecast-only Experiments

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A. *Current Operational model (GFS.v15, C768L64). In operation since 12June2019*

1) Under, for instance, ./gfs.20200825/00/

gfs.t00z.atminc.nc
gfs.t00z.dtfanl.nc
RESTART/
20201217.000000.sfcanl_data.tile1.nc
20201217.000000.sfcanl_data.tile2.nc
20201217.000000.sfcanl_data.tile3.nc
20201217.000000.sfcanl_data.tile4.nc
20201217.000000.sfcanl_data.tile5.nc
20201217.000000.sfcanl_data.tile6.nc

~12.6GB for this set per cycle

2) Under ./gdas.20201216/18/RESTART (27 files)

20201217.000000.coupler.res
20201217.000000.fv_core.res.nc
20201217.000000.fv_core.res.tile1.nc
20201217.000000.fv_core.res.tile2.nc
20201217.000000.fv_core.res.tile3.nc
20201217.000000.fv_core.res.tile4.nc
20201217.000000.fv_core.res.tile5.nc
20201217.000000.fv_core.res.tile6.nc
20201217.000000.fv_srf_wnd.res.tile1.nc
20201217.000000.fv_srf_wnd.res.tile2.nc
20201217.000000.fv_srf_wnd.res.tile3.nc
20201217.000000.fv_srf_wnd.res.tile4.nc
20201217.000000.fv_srf_wnd.res.tile5.nc
20201217.000000.fv_srf_wnd.res.tile6.nc
20201217.000000.fv_tracer.res.tile1.nc
20201217.000000.fv_tracer.res.tile2.nc
20201217.000000.fv_tracer.res.tile3.nc
20201217.000000.fv_tracer.res.tile4.nc
20201217.000000.fv_tracer.res.tile5.nc
20201217.000000.fv_tracer.res.tile6.nc
20201217.000000.phy_data.tile1.nc

20201217.000000.phy_data.tile2.nc
20201217.000000.phy_data.tile3.nc
20201217.000000.phy_data.tile4.nc
20201217.000000.phy_data.tile5.nc
20201217.000000.phy_data.tile6.nc

~24GB in this set per cycle

B. GFS.v16 (C768L127, with Incremental Analysis Update) to be implemented for operation on February 3, 2021

1) Under, for instance, ./gfs.20200825/00/atmos

gfs.t00z.atmi003.nc
gfs.t00z.atmi009.nc
gfs.t00z.atminc.nc
gfs.t00z.dtfanl.nc
./RESTART
20201216.210000.sfcanl_data.tile1.nc
20201216.210000.sfcanl_data.tile2.nc
20201216.210000.sfcanl_data.tile3.nc
20201216.210000.sfcanl_data.tile4.nc
20201216.210000.sfcanl_data.tile5.nc
20201216.210000.sfcanl_data.tile6.nc

~16 GB per cycle

2) Under gdas.20201216/18/atmos/RESTART

20201216.210000.coupler.res
20201216.210000.fv_core.res.nc
20201216.210000.fv_core.res.tile1.nc
20201216.210000.fv_core.res.tile2.nc
20201216.210000.fv_core.res.tile3.nc
20201216.210000.fv_core.res.tile4.nc
20201216.210000.fv_core.res.tile5.nc
20201216.210000.fv_core.res.tile6.nc
20201216.210000.fv_srf_wnd.res.tile1.nc
20201216.210000.fv_srf_wnd.res.tile2.nc
20201216.210000.fv_srf_wnd.res.tile3.nc
20201216.210000.fv_srf_wnd.res.tile4.nc
20201216.210000.fv_srf_wnd.res.tile5.nc
20201216.210000.fv_srf_wnd.res.tile6.nc

20201216.210000.fv_tracer.res.tile1.nc
20201216.210000.fv_tracer.res.tile2.nc
20201216.210000.fv_tracer.res.tile3.nc
20201216.210000.fv_tracer.res.tile4.nc
20201216.210000.fv_tracer.res.tile5.nc
20201216.210000.fv_tracer.res.tile6.nc
20201216.210000.phy_data.tile1.nc
20201216.210000.phy_data.tile2.nc
20201216.210000.phy_data.tile3.nc
20201216.210000.phy_data.tile4.nc
20201216.210000.phy_data.tile5.nc
20201216.210000.phy_data.tile6.nc

19 GB per cycle

To run a gfs forecast, the model needs to read in 6-hour forecasts from the last GDAS cycle, analysis increments from the current gfs cycle, and the updated surface analyses from the current gfs cycle.