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tiegcm timestep tests

1 message

Ben Foster <foster@ucar.edu> Tue, Mar 31, 2015 at 1:19 PM
To: Wenbin Wang <wbwang@ucar.edu>, "Stanley C. Solomon" <stans@ucar.edu>

I have made two 20-day equinox solar min runs of 5-deg TIEGCM,
one run with STEP=30, the other with STEP=120, all else the same,
both runs using shapiro constant = .03. Then I made two more runs
as before, except using shapiro constant = .03 * step / 300, as Wenbin
suggested.

Using the step-dependent shapiro constant did reduce differences
between the step30 and step120 runs, but they may still be too large.
My results, including history files and ps plots are in
/glade/scratch/foster/tiegcm_tstep/tiegcm_sres.data. I have not made
any 2.5-deg runs.

My working directory is /glade/u/home/foster/tiegcm/tiegcm_tstep,
with source in tiegcm_trunk/src. The source dir includes mods for
a new namelist parameter SHAPIRO_SMOOTH. If this parameter
is not set in namelist input file, the shapiro constant for smoothing
will default to .03. If you set it to a constant, it will use that constant.
If you set SHAPIRO_SMOOTH=999., then it will use .03*step/300
for the shapiro constant. See *.inp in my working dir.
To get these modifications, copy input.F and cons.F from my src dir
to your own svn trunk working copy and rebuild.

--Ben

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