

## Exercise 6:

Branch from Exercise.5. Run 5 days (or 1 month).

Include all previous modifications. Also double the CO<sub>2</sub> and N<sub>2</sub>O values.

CO<sub>2</sub> needs to be consistent across model components.

Hint: Some things can be modified via env\_conf.xml and others post configure.

Be sure to update your README.case file to keep track of your changes.

The model will run regardless of whether or not you remember to include all

of your changes. Check your buildnml scripts and the processed namelist

files (\$RUNDIR/<model>\_in files) to make sure all changes are included.

If you like, resubmit and continue the run for 1 more month.

NOTE: for the following line by line instructions, i will assume student ran exercise 5 for 1 month and will run exercise 6 for 1 month.

1. create\_newcase -case ~/b.day2.6 -res T31\_gx3v7

-mach bluefire -compset B\_1850\_CN

cd ~/b.day2.6

2. xmlchange -file env\_run.xml -id STOP\_N -val 1

xmlchange -file env\_run.xml -id STOP\_OPTION -val nmonths

3. xmlchange -file env\_conf.xml -id CAM\_NAMELIST\_OPTS

-val solar\_const=1359.53,ch4vmr=3166.44e-9,n2ovmr=550.e-9

4. xmlchange -file env\_conf.xml -id CCSM\_CO2\_PPMV -val 569.4

5. xmlchange -file env\_conf.xml -id RUN\_TYPE -val branch

6. xmlchange -file env\_conf.xml -id RUN\_REFCASE -val b.day2.5

7. xmlchange -file env\_conf.xml -id RUN\_REFDATE -val 0001-02-01

8. xmlchange -file env\_conf.xml -id GET\_REFCASE -val FALSE

9. configure -case

10. Edit Buildconf/cpl.buildnml.csh and

a. removed "orb\_iyear" and "orb\_iyear\_align"

b. change "orb\_mode" to orb\_mode = 'fixed\_parameters'

c. add orb\_eccen = 0., orb\_obliqu = 23., and orb\_mvlp = 0. to namelist

11. Edit Buildconf/pop2.buildnml.csh and change sw\_absorption\_type = 'jerlov'

12. Update README.case

13. b.day2.6.bluefire.build

14. cp /ptmp/\$LOGNAME/archive/b.day2.5/rest/0001-02-01-0000/rpointer\*

/ptmp/\$LOGNAME/b.day2.6/run/.

cp /ptmp/\$LOGNAME/archive/b.day2.5/rest/0001-02-01-00000/b.day2.5\*

/ptmp/\$LOGNAME/b.day2.6/run/.

15. Edit b.day2.6.bluefire.run and add the following to BSUB lines:

a) #BSUB -P 37591059

b) #BSUB -U 37591059#1

Note this is for tutorial purposes ONLY.

16. b.day2.6.bluefire.submit

Notes: restart files may still be in exercise 5 rundir, you can copy them from this space too. Also, if the students are branching from a different date, the date stamp will be different than the above example.