**esm15\_** **friction**

Changes in code (CABLE3-ESM): cbl\_friction\_vel.F90

IF( cable\_runtime%esm15\_friction ) THEN

psim\_1 = psim( zetar(:,iter), mp, CPI\_C )

ELSE

psim\_1 = psim( zetar(:,iter) \* zref\_uv/zref\_tq, mp, CPI\_C )

ENDIF

IF( cable\_runtime%esm15\_friction ) THEN

psim\_arg = zetar(:,iter) / z\_eff

ELSE

psim\_arg = zetar(:,iter) \* z0m / zref\_tq

ENDIF

IF( cable\_runtime%esm15\_friction ) THEN

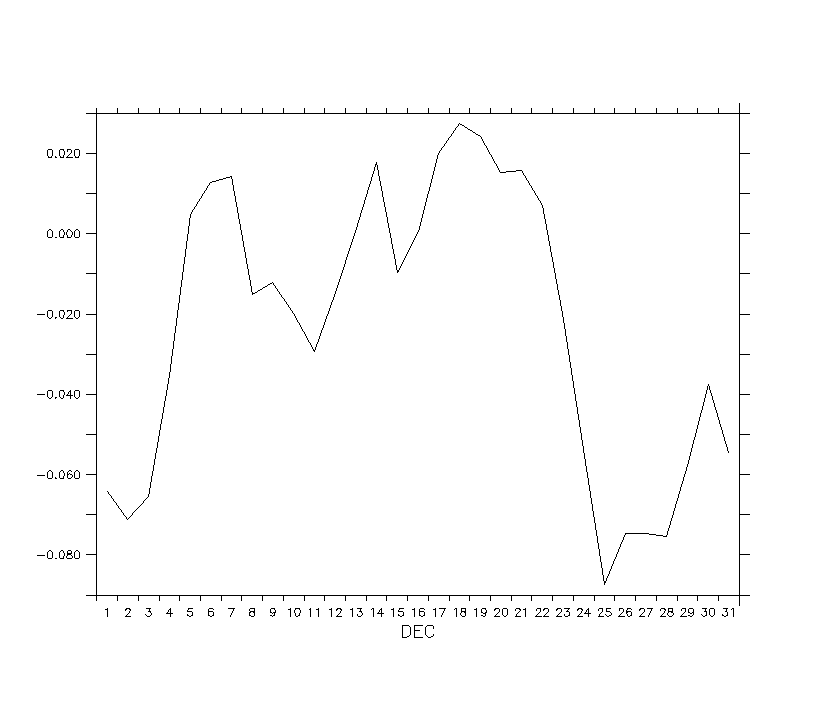
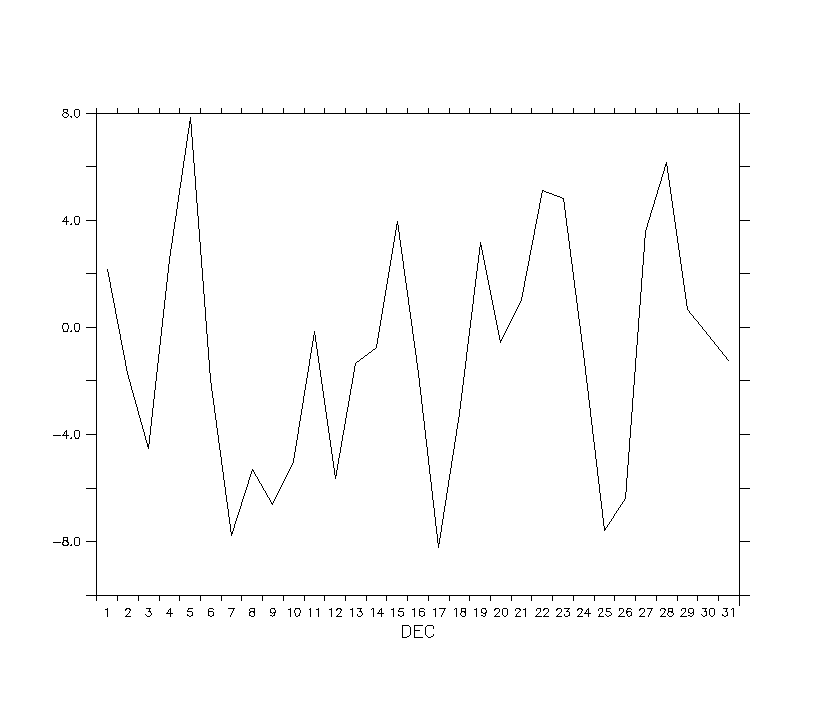
friction\_vel = MAX(1.e-6, lower\_limit )

ELSE

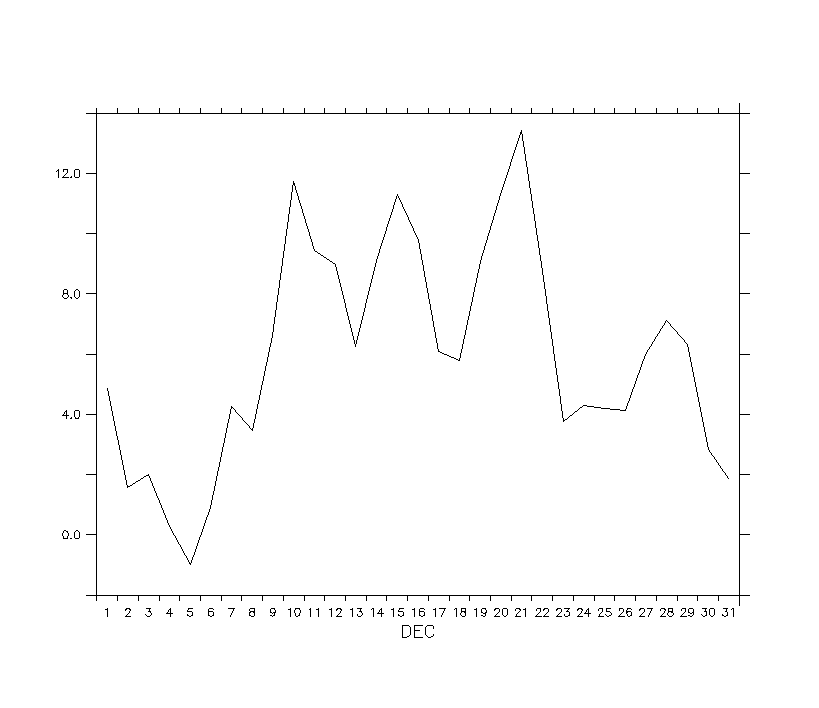
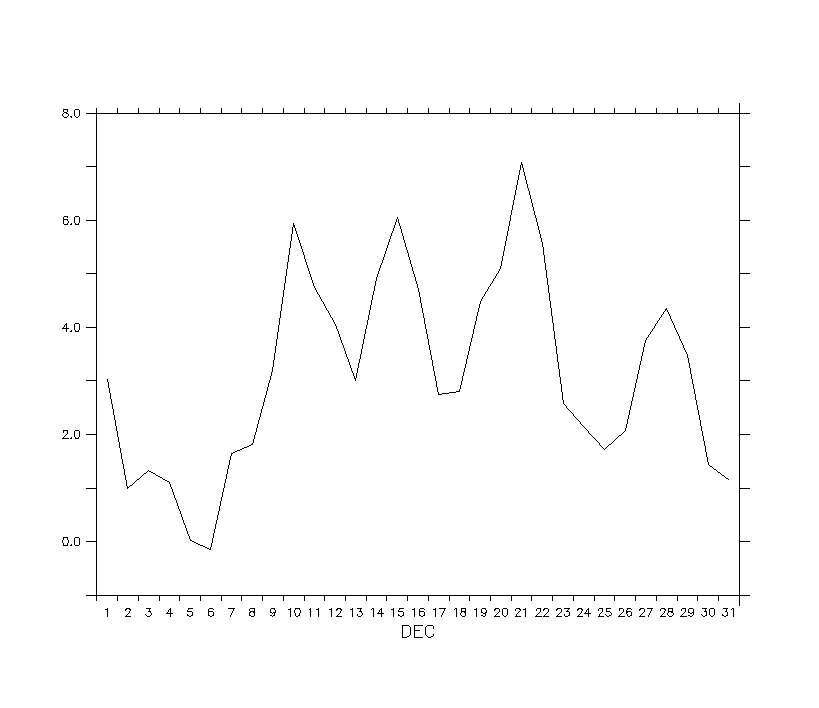
friction\_vel= MIN( MAX(1.e-6, lower\_limit), 10.0 )

ENDIF

Effect on friction:



Effect on carbon:



Recommendation: Discussion