

**Impact of (step sizes):** all  $\Delta t$ 's in Eqs. (1)-(4)  
**Impact of (components):** all major components of EAMv1  
**Diagnosed with:** v1\_All\_Shorter - v1\_CTRL  
**Results shown in:** Figs. 4-5, left columns in Figs. 8-10

**Impact of (step sizes):**  $\Delta t_{\text{macmic}}$   
**Impact of (components):** collectively subcycled cloud macro/microphysics  
**Diagnosed with:** v1\_MacMic\_Shorter - v1\_CTRL  
**Results shown in:** middle columns in Figs. 8-10

**Impact of (step sizes):** all  $\Delta t$ 's in Eqs. (1)-(4) except  $\Delta t_{\text{macmic}}$   
**Impact of (components):** all processes outside the cloud macro/microphysics subcycles, including process coupling  
**Diagnosed with:** v1\_All\_Except\_MacMic\_Shorter - v1\_CTRL  
**Results shown in:** right columns in Figs. 8-10

**Impact of (step sizes):**  $\Delta t_{\text{remap}}, \Delta t_{\text{adv}}, \Delta t_{\text{rad}}$   
**Impact of (components):** dynamics and radiation  
**Diagnosed with:** v1\_All\_Except\_MacMic\_Shorter - v1\_CPL+DeepCu\_Shorter  
**Results shown in:** Fig. 14

**Impact of (step sizes):**  $\Delta t_{\text{CPLmain}}, \Delta t_{\text{deepCu}}$   
**Impact of (components):** misc. processes, including deep convection, and the coupling between them  
**Diagnosed with:** v1\_CPL+DeepCu\_Shorter - v1\_Dribble  
**Results shown in:** right column in Fig. 16

**Impact of (step sizes):**  $\Delta t_{\text{CPLmacmic}}$   
**Impact of (components):** coupling of cloud macro/microphysics with rest of model  
**Diagnosed with:** v1\_Dribble - v1\_CTRL  
**Results shown in:** left column in Fig. 16

