Possible Development Goals for TIE-GCM v. 2.1:

Upper Boundary O^+ and e^- heat flux — need diurnal variation
Electron heating rate parameterization improvement
Revise seasonal/latitudinal variability of K_{zz} at lower boundary
Variable critical latitudes for CMIT and AMIE
Improve auroral ionization rate profile parameterization and dependence on E_0
Revise auroral precipitation oval for Heelis and Weimer
Re-evaluate JOULEFAC and COLFAC
Long-term secular variation
Make He a true major species:
      should be included in minor species diffusion calculation
      should be included in ionization/heating rate calculations
      should generate He^+
Add H as minor species
Add H^+ and charge exchange reactions
Replace quartic equation solver with simple iterative method
New solar model
New solar ionization scheme
Re-tuning of solar heating and radiative cooling