In pgrb2b, the following variables will be added in GEFS 2015 upgrade:

BRTMP Brightness Temperature [K]
    top of atmosphere

CAPE Convective Available Potential Energy [J/kg]
    255-0 mb above ground

CDUVB Clear sky UV-B Downward Solar Flux [W/m^2]
    surface

CIN Convective Inhibition [J/kg]
    255-0 mb above ground

CLWMR Cloud Mixing Ratio [kg/kg]
    10mb, 20mb, 30mb, 50mb, 70mb

CNWAT Plant Canopy Surface Water [kg/m^2]
    surface

CPOFP Percent frozen precipitation [%]
    surface

DPT Dew Point Temperature [K]
    30-0 mb above ground

DUVB UV-B Downward Solar Flux [W/m^2]
    surface

FRICV Frictional Velocity [m/s]
    surface

GUST Wind Speed
    surface

HGT Geopotential Height [gpm]
    PV=-1.5e-06 (Km^2/kg/s) surface
      1.5, -1, 1, -5, 5

HINDEX
    surface

HLCY Storm Relative Helicity [m^2/s^2]
    3000-0 m above ground

ICAHT ICAO Standard Atmosphere Reference Height [m]
    max wind
    tropopause

ICETK Ice Thickness
    surface

ICIP Icing [%]

```
      300, 400, 500, 600, 700, 800 mb

MNTSF Montgomery Stream Function [m^2/s^2]
      320 K isentropic level

MSLET MSLP (Eta model reduction) [Pa]:
      mean sea level

NCPCP Large-Scale Precipitation (non-convective) [kg/m^2]
      surface

O3MR Ozone Mixing Ratio [kg/kg]
      1, 2, 3, 5, 7,125, 150, 200, 250, 300, 350, 400 mb

PLI Parcel Lifted Index (to 500 hPa) [K]
      30-0 mb above ground

PLPL Pressure of level from which parcel was lifted [Pa]
      255-0 mb above ground

PRES Pressure [Pa]
      80 m above ground
      mean sea level
      PV=-1.5e-06 (Km^2/kg/s) surface
          1.5, -1, 1, -5, 5

PWAT Precipitable Water [kg/m^2]
      30-0 mb above ground

RH Relative Humidity [%]
      120-90 mb above ground
          Also 150-120, 180-150, 60-30, 90-60
      20 mb
          Also 30, 70 mb

SFCR Surface Roughness [m]
      surface

SOILL Liquid Volumetric Soil Moisture (non Frozen) [Proportion]
      0-0.1 m below ground
      Also 0.1-0.4, 0.4-1, 1-2 m

SPFH Specific Humidity [kg/kg]
      10, 20, 30, 50, 70, 100, 150, 350, 400, 450, 550, 600, 650,
      750, 800, 900, 950, 975 mb
      60-30 mb above ground
      Also 90-60, 120-90, 150-120, 180-150 mb

TMP Temperature [K]
      80 m above ground
          Also 100 305 457 610 914 4572 m
      60-30 mb above ground
          Also 90-60, 120-90, 150-120, 180-150 mb
      320 K isentropic level
```

```
        PV=-1.5e-06 (Km^2/kg/s) surface
            Also 1.5, -1, 1, -5, 5  {e-06 (Km^2/kg/s)}


UGRD U-Component of Wind [m/s]
        60-30 mb above ground
            Also 90-60, 120-90, 150-120, 180-150 mb
        80, m above ground
            Also 100, 305, 457, 610, 914, 4572
        320 K isentropic level
        planetary boundary layer
        PV=-1.5, 1.5, -1, 1, -5, 5  (*e-6 Km^2/kg/s) surface
            Also 1.5, -1, 1, -5, 5  {e-06 (Km^2/kg/s)}


VGRD: V-Component of Wind [m/s]
        60-30 mb above ground
            Also 90-60, 120-90, 150-120, 180-150 mb
        80, m above ground
            Also 100, 305, 457, 610, 914, 4572
        320 K isentropic level
        planetary boundary layer
        PV=-1.5, 1.5, -1, 1, -5, 5  (*e-6 Km^2/kg/s) surface
            Also 1.5, -1, 1, -5, 5  {e-06 (Km^2/kg/s)}


USTM U-Component Storm Motion [m/s]
        6000-0 m above ground

VSTM U-Component Storm Motion [m/s]
        6000-0 m above ground

VIS Visibility [m]
        surface

VRATE Ventilation Rate [m^2/s]
        planetary boundary layer

VWSH Vertical Speed Shear [1/s]
        PV==-1.5e-06 (Km^2/kg/s) surface
            Also 1.5, -1, 1, -5, 5  e-06 (Km^2/kg/s)
```