

MINX-derived global plume height
database in 2008
Val Martin et al. (2018)

Statistically derived profiles (%) based
on altitude, land cover unit, region, and
season

Map native MISR injection altitude
distribution (0–8 km, 250 m) to GMAO
47-layer reduced vertical grid (hPa)

Assign a smoke injection height altitude
distribution to GEOS-Chem grid box
(2° latitude x 2.5° longitude)

Modify setemis.F in GEOS-Chem
(v9.01.01) to distribute biomass burning
emissions according to 3-D matrix