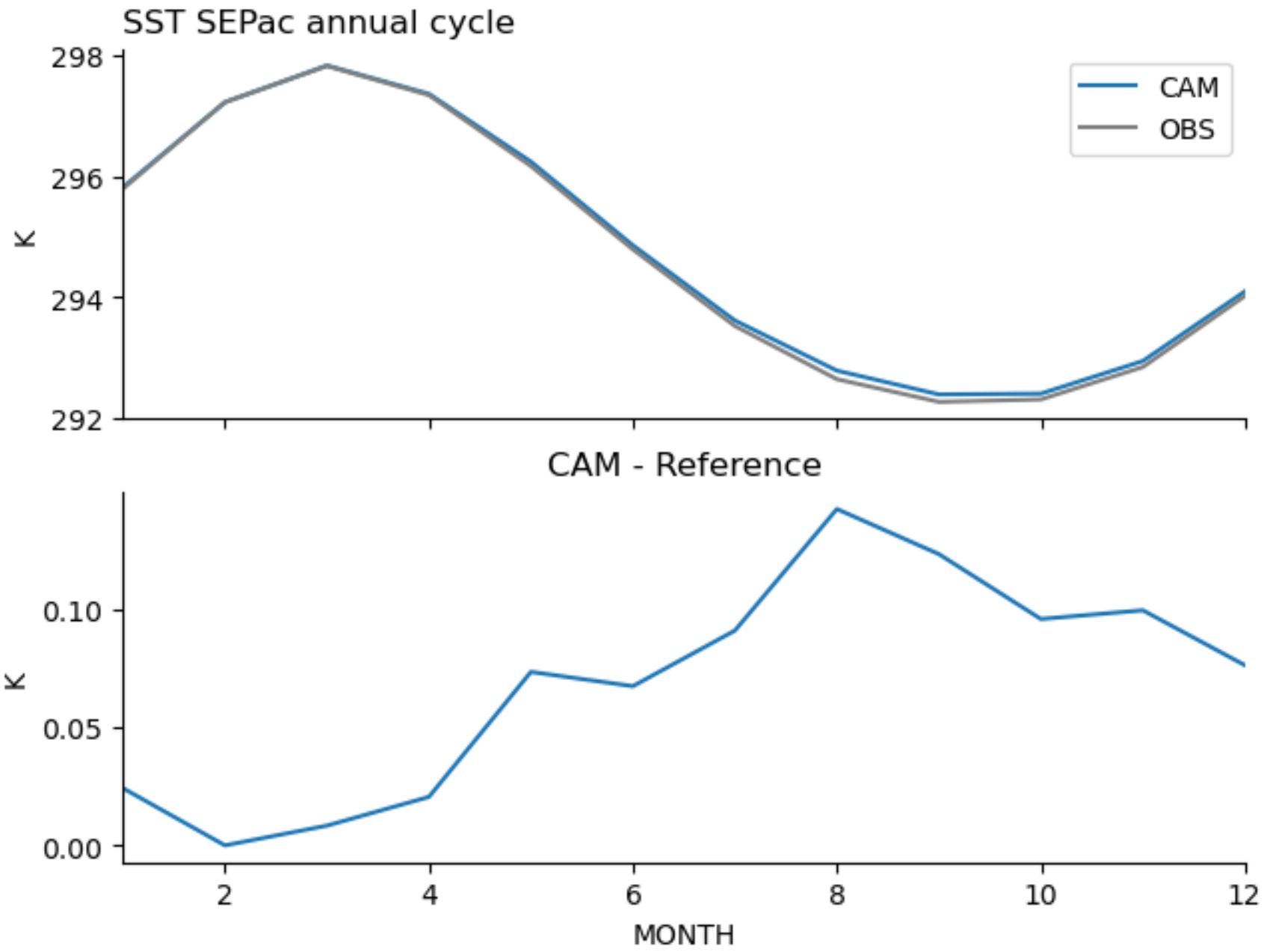


Southeast Pacific Stratus

CASE: f.cam6_3_153.FLTHIST_ne30.GLL_grid.001

climo generated from yrs_1995_2005



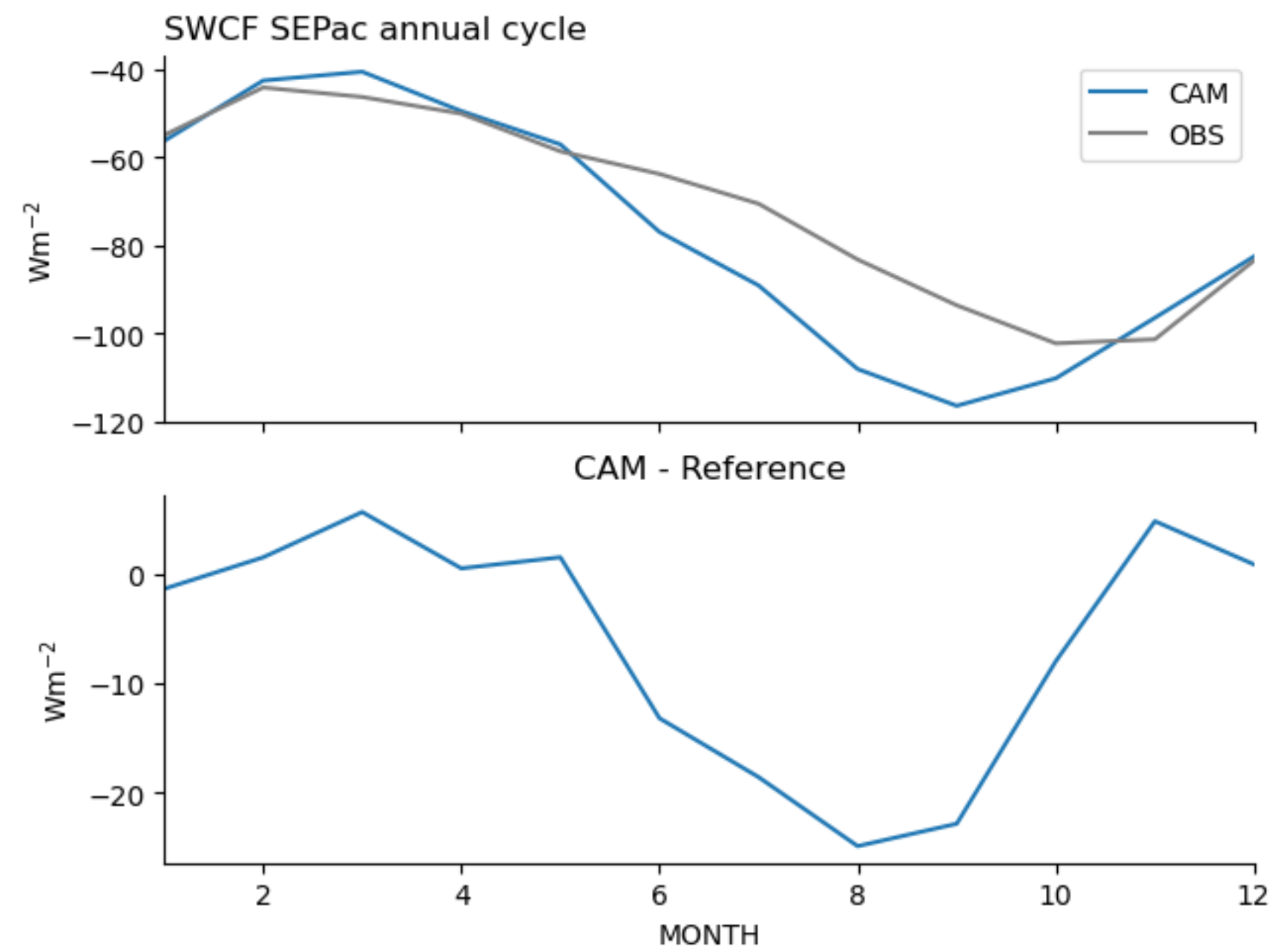
SST — Observation is ERAI

These plots show the annual cycle averaged over the Southeast Pacific stratocumulus region defined as:

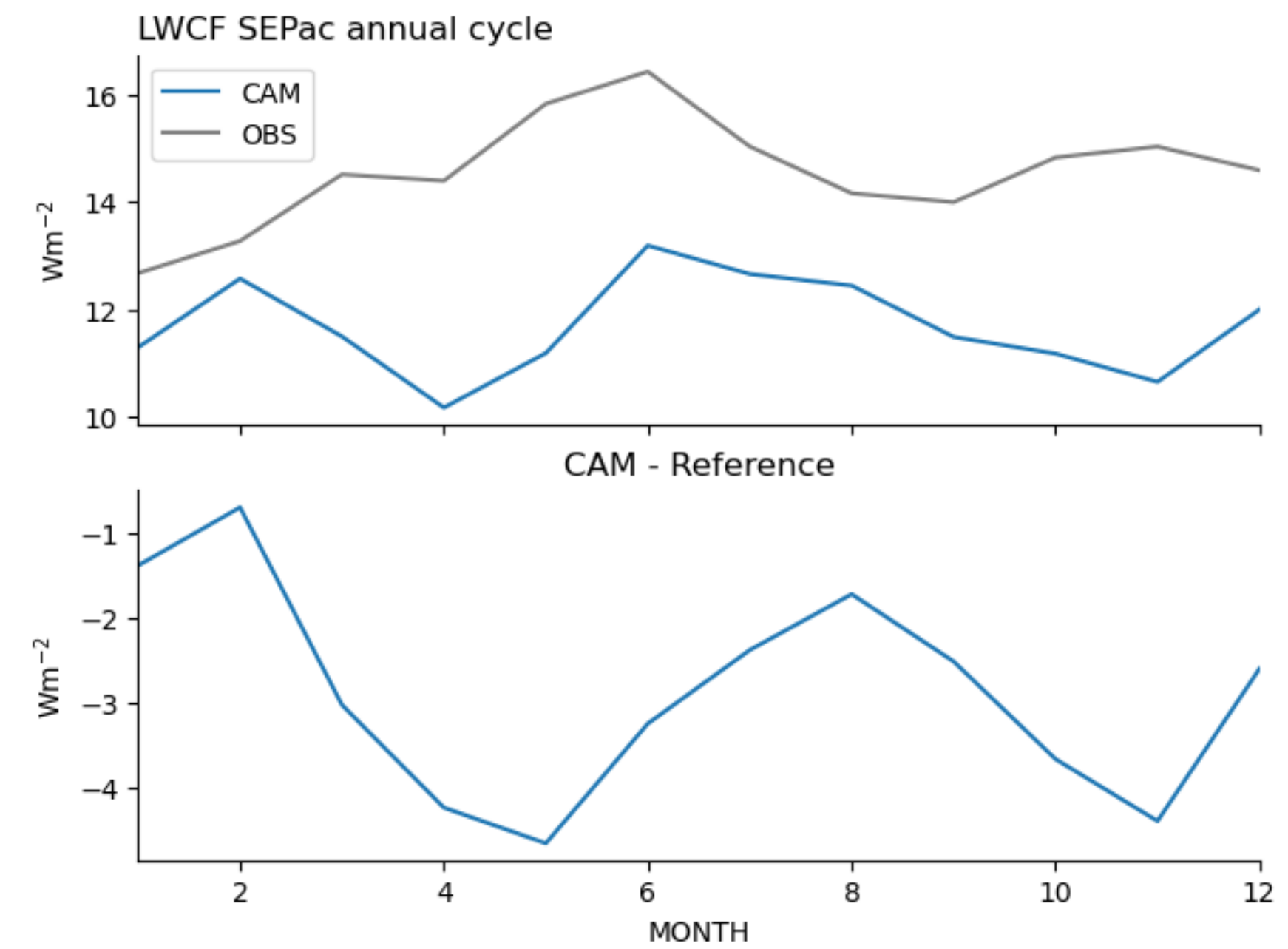
-20 to -10, 360-90, 360-80

This is the usual box that is used, following Klein & Hartmann 1993

CAM clouds are reflecting TOO MUCH in June to October

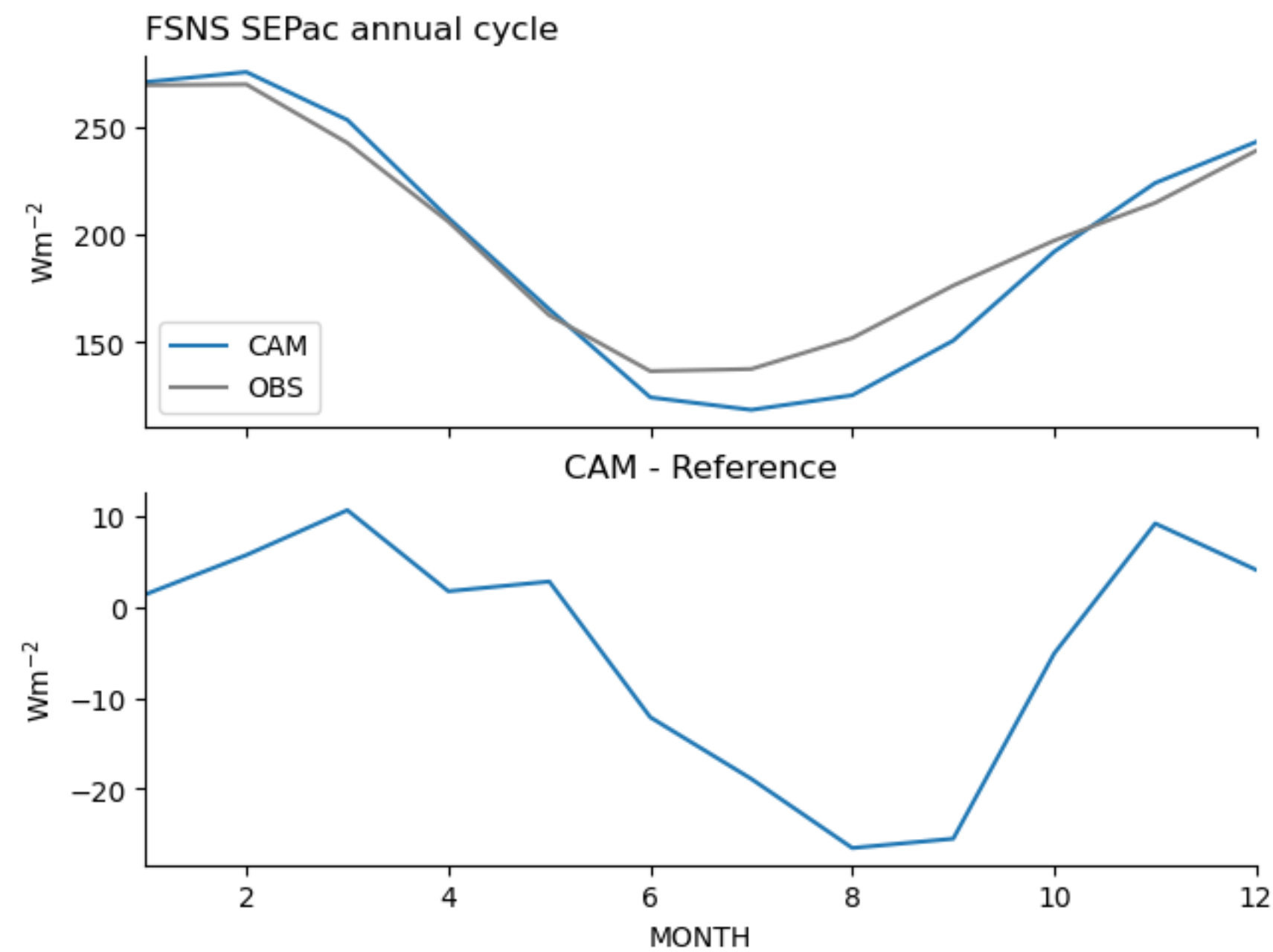


SW cloud radiative effect (SWCF) at TOA compared with CERES EBAF 4.1. CERES averaged 2001-2020

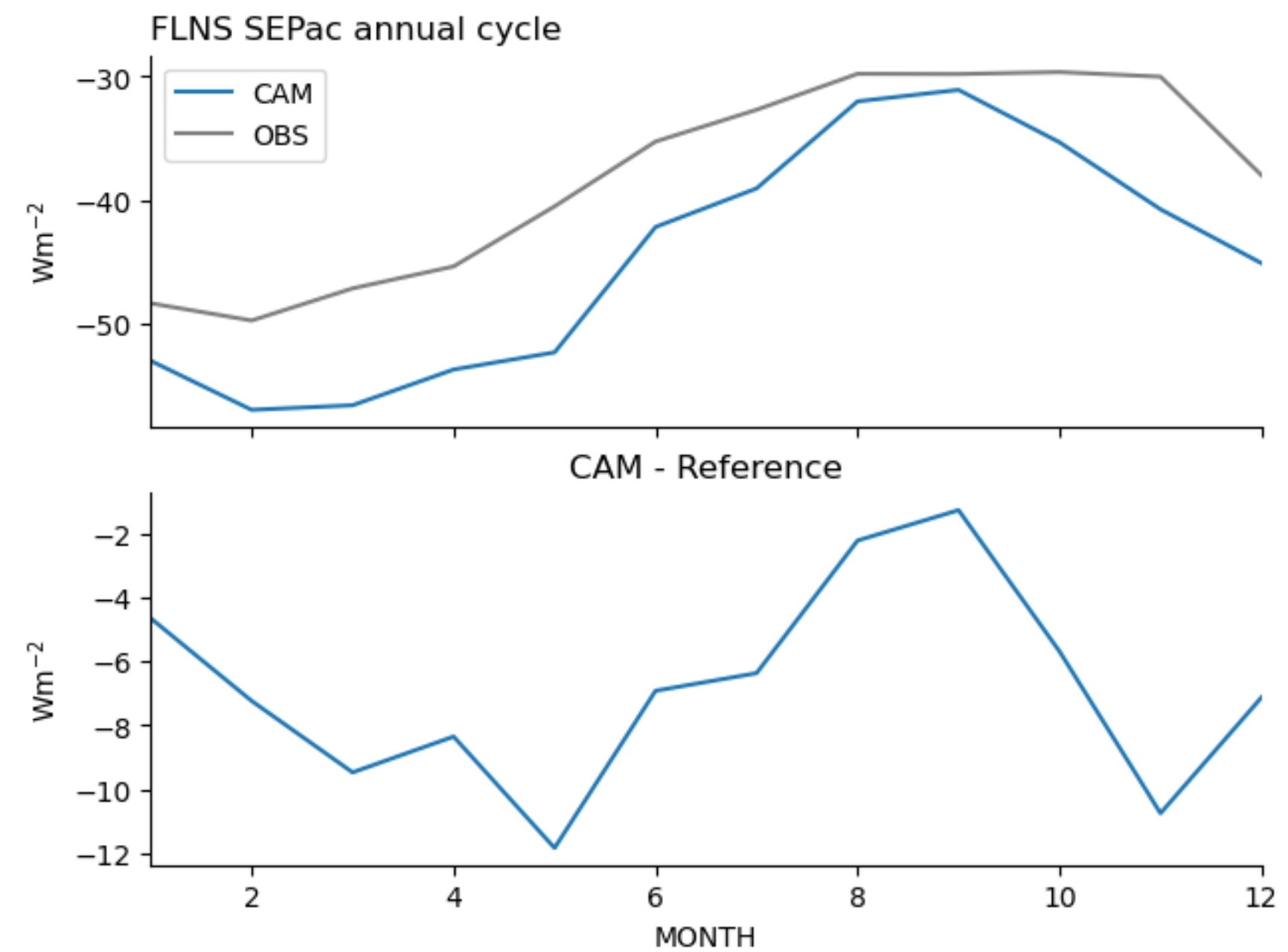


LW cloud radiative effect (SWCF) at TOA compared with CERES EBAF 4.1. CERES averaged 2001-2020

Excessive cloud albedo is reducing the SW flux to the surface.
 Not enough downwelling longwave in CAM.

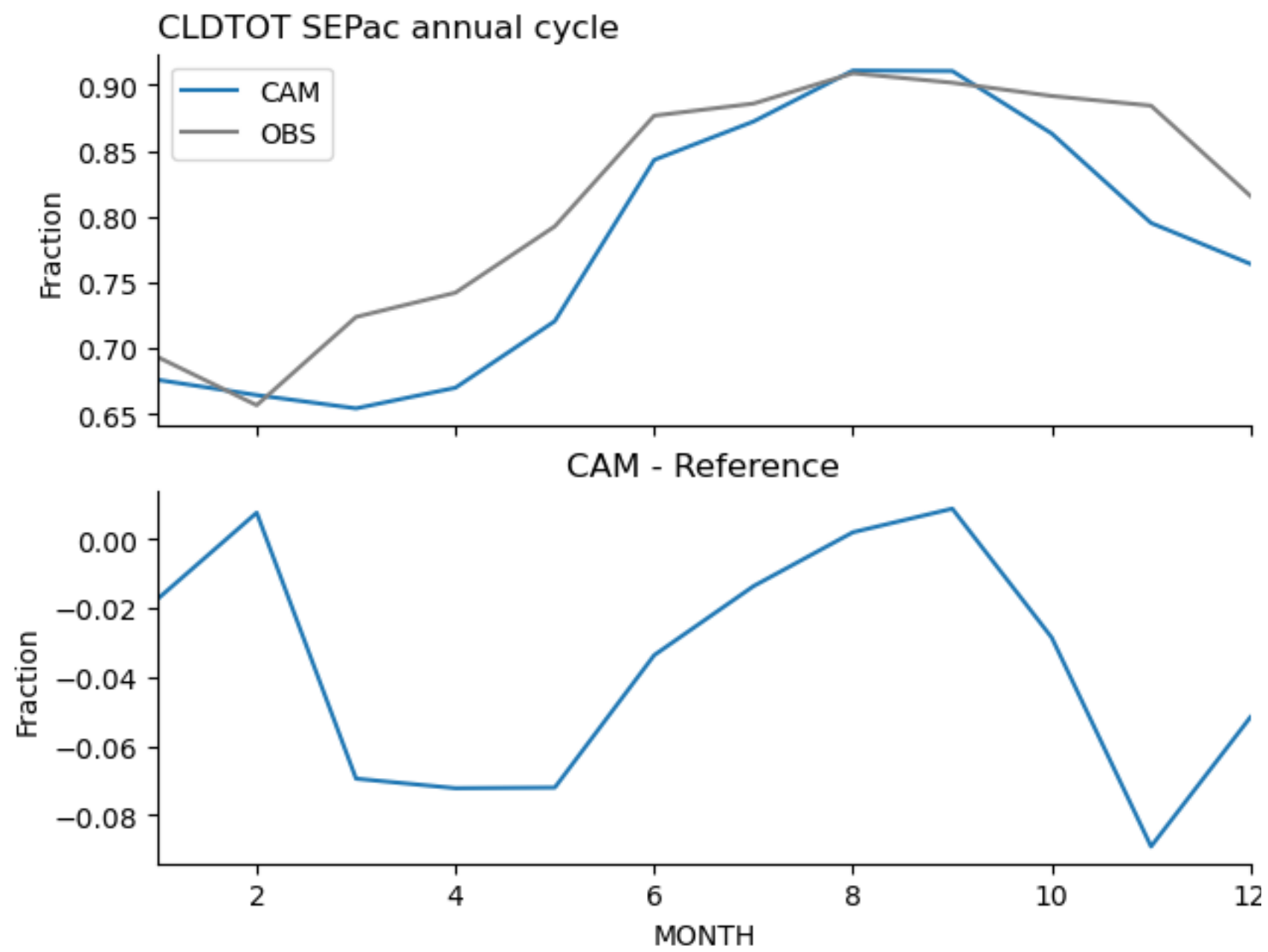


Net SW at the surface compared with CERES EBAF 4.1.
 CERES averaged 2001-2020

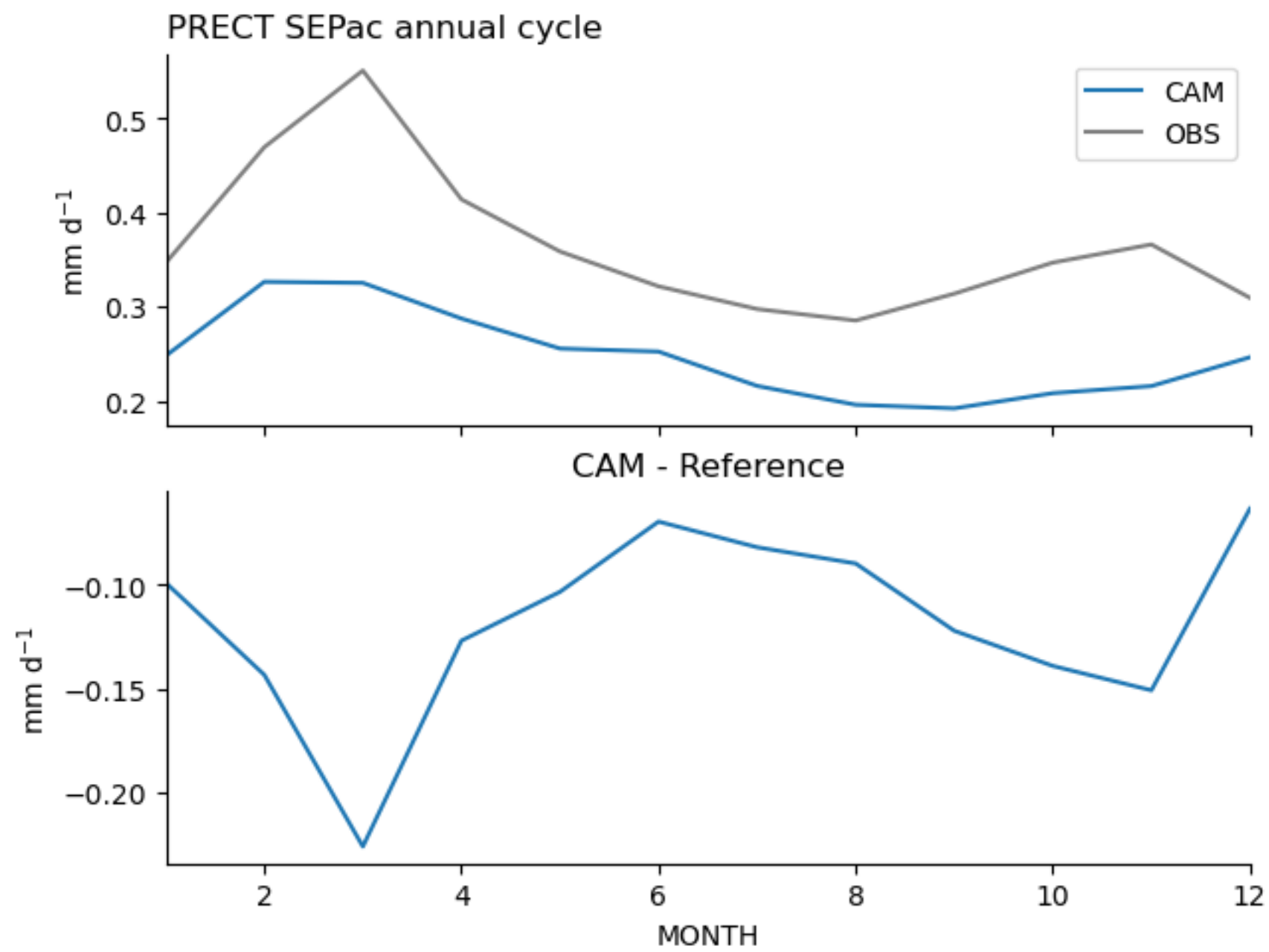


Net LW at the surface compared with CERES EBAF 4.1.
 CERES averaged 2001-2020

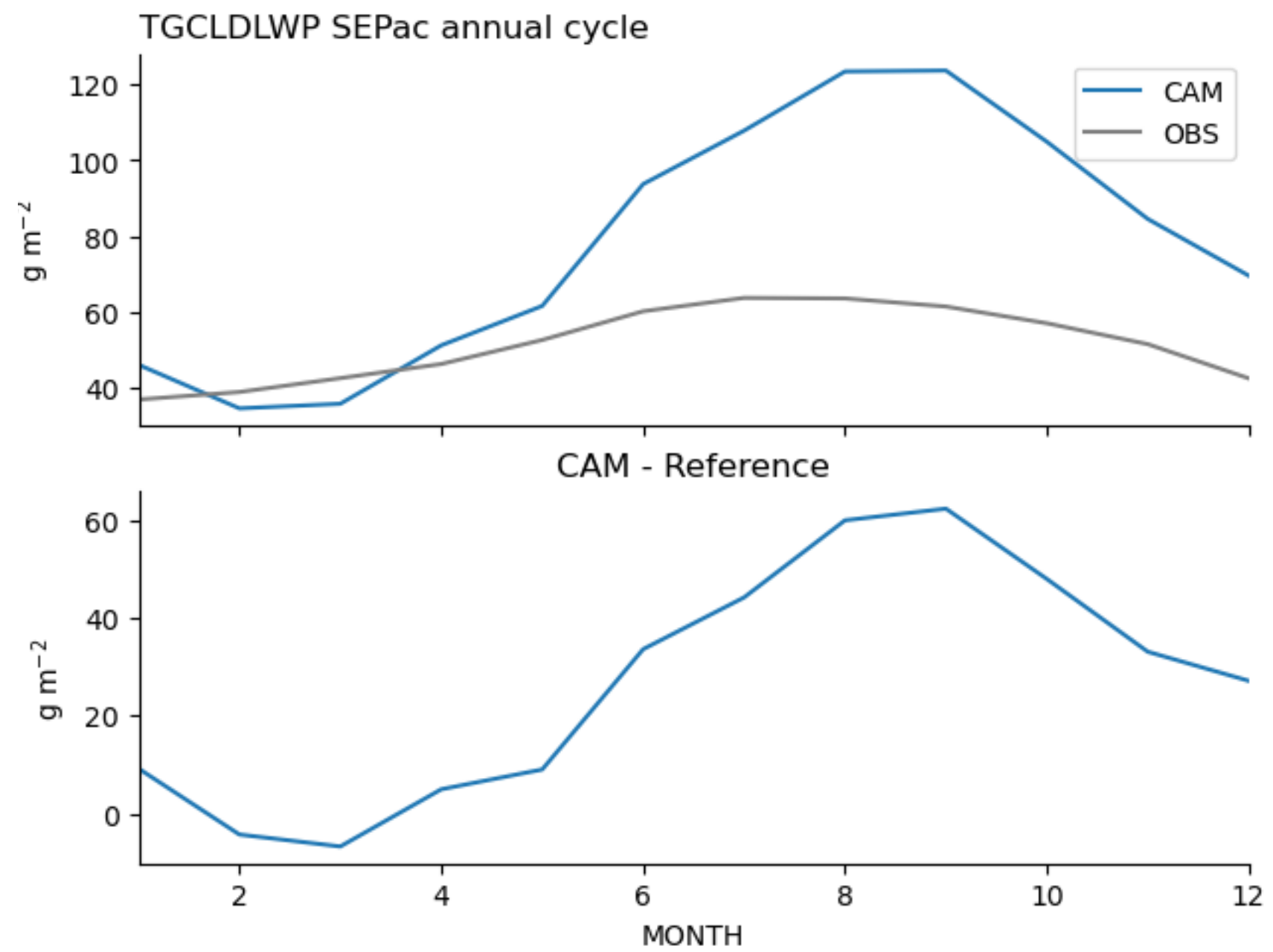
This is down minus up. Since the surface temperature is correct, I think this means CAM does not have enough downwelling longwave (if we believe CERES).



This is CLDTOT vs CALIPSO's total cloud cover. Not a fair comparison because COSP was not used, but gives a sense. CALIPSO is averaged over 2006-2020 (2° grid)



This is PRECT vs ERAI. Not a good comparison because ERAI doesn't do precipitation all that well. I don't know the averaging period for ERAI.



This is liquid water path vs **ERA5**. I'm not sure if this is a good comparison. ERA5 averaged 1979-2021.