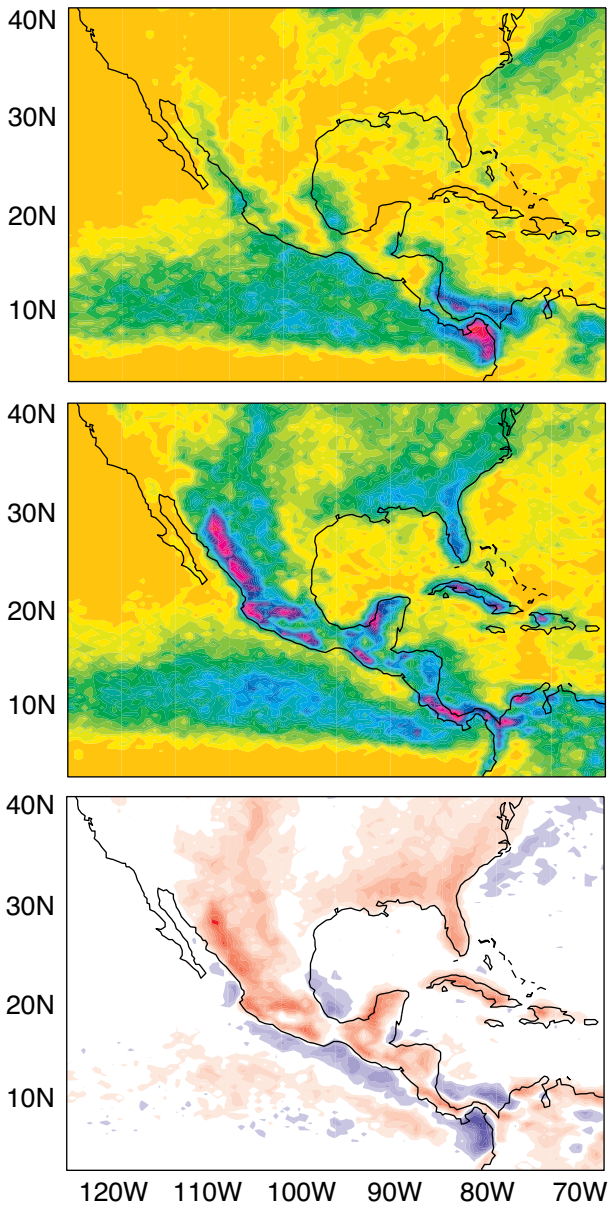

Figure 31. Frequency of deep convection as indicated by the occurrence of clouds with tops colder than -38°C at two different times of day during July. Around 5 AM local time (top) the highlands are cloud free and the offshore waters experience the highest frequency of convective clouds, whereas around 5 PM local time (middle), convection tends to be concentrated over the high terrain and the compensating subsidence tends to keep offshore waters relatively cloud free. The difference between 5 PM minus 5 AM (bottom panel) shows even more clearly the complex influences of the mountain ranges and the shape of the coastline. It is interesting to note how at ~5 PM, the continental monsoon and the ITCZ are well separated, but at ~5 AM they appear to be nearly merged.