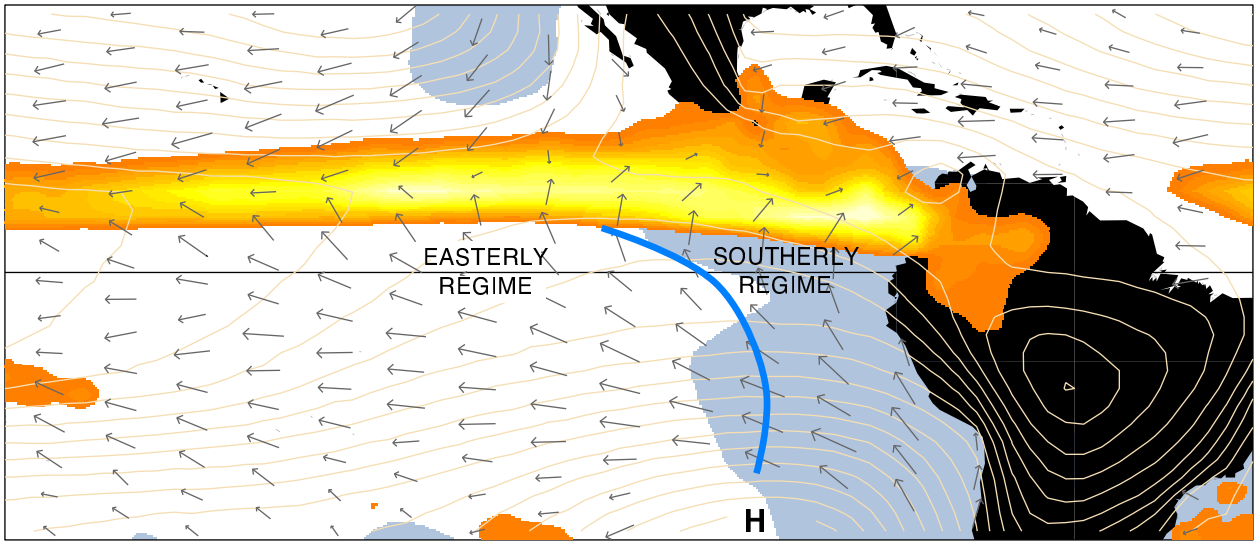


Figure 40. Equatorial wind regimes as defined in the text, superimposed upon the average September-October climatology. Surface vector wind, rainfall, and stratus cloud sources and plotting conventions as in Fig. 2. The contours indicate sea-level pressure (contour interval 1 mb). The heavy line depicts the "ridge line" in the sea-level pressure field, i.e., the highest pressure at each latitude.

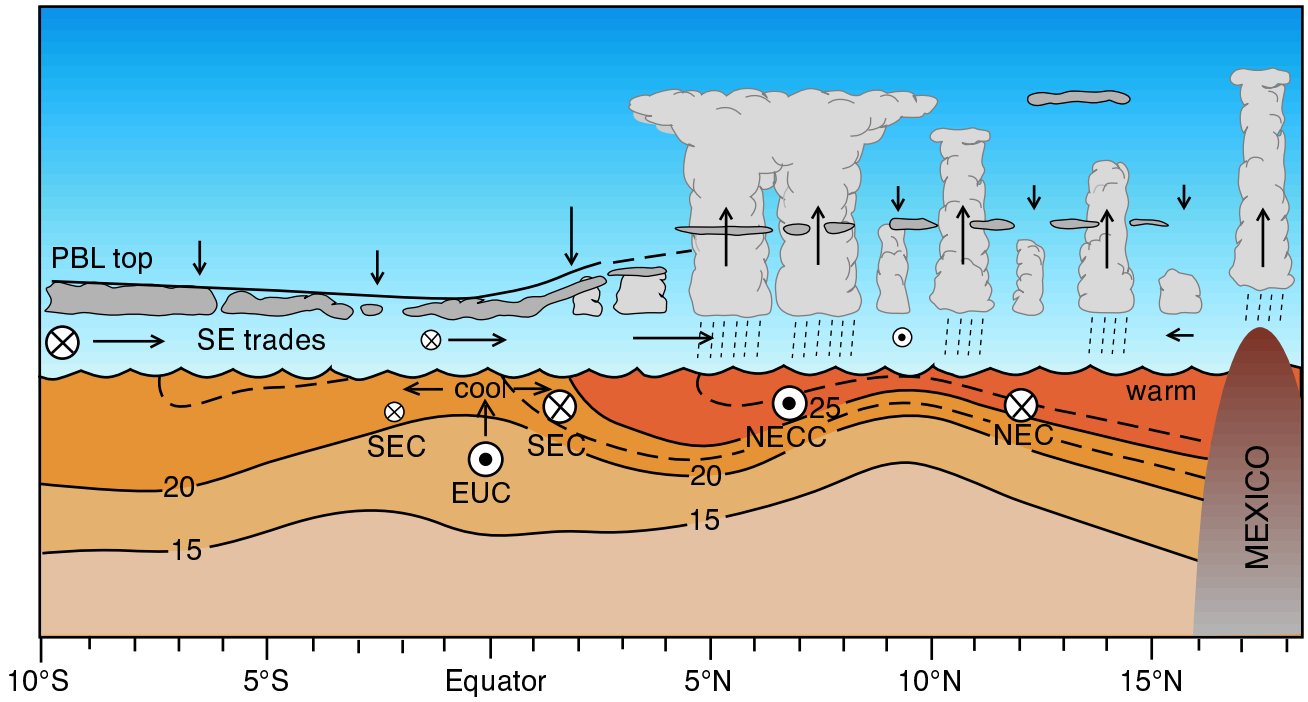
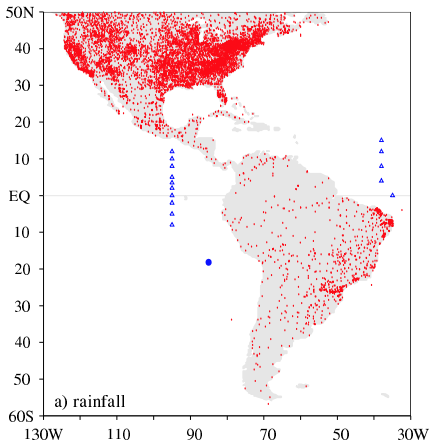


Figure 41. Idealized cross section through the ITCZ/cold tongue complex in the monsoonal regime showing the atmospheric meridional circulation, atmospheric boundary layer depth, and the oceanic thermal structure. SEC refers to the South Equatorial Current, NECC to the North Equatorial Countercurrent, and EUC to the Equatorial Undercurrent. The heavy cloud denotes the position of the ITCZ. Encircled x's (dots) denote westward (eastward) flowing winds or currents.

Figure 42. PACS SONET upper-air stations for enhanced climate monitoring.



daily raingauges (dots)

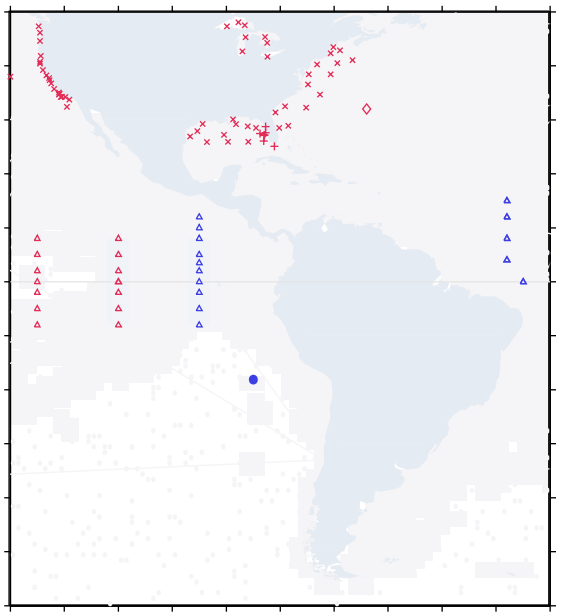
TRMM ATLAS (not shown)

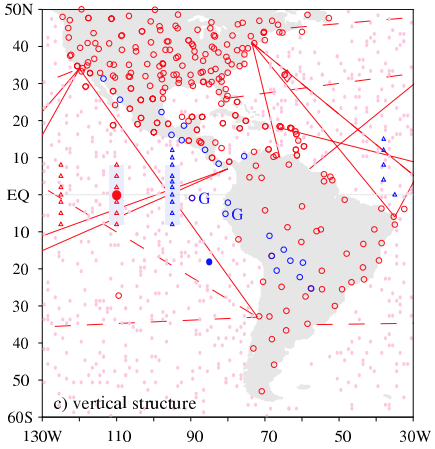
satellite estimates (not shown)

CLIVAR enhanced monitoring activites are in blue:

enhanced ATLAS (triangles)

IMET (dot)





Raobs (circles)

ATLAS (triangles)

current meter (dot)

Ocean Station S (diamond)

satellite estimates (not shown)

ARGO (dots over oceans)

VOS (solid and dashed lines)

CLIVAR enhanced monitoring activities are indicated in blue:

SONET (circles)

enhanced ATLAS (triangles)

aeronomy laboratory profiler (G)

TAO tender enhanced monitoring (shaded rectangles)

IMET (dot)

Figure 43. Existing and proposed elements of the climate observing system that are of importance to US CLIVAR Pan American research. Shown schematically are (a) existing rainfall observing stations, (b) locations of existing and proposed ocean surface temperature measurements, and (c) existing or proposed locations for vertical profile observations of the atmospheric and oceanic state. Red symbols indicate operational and quasi-operational observations; blue symbols indicate US CLIVAR-enhanced climate monitoring observations.