Overview: Upper-level flow continues to be dominated by the South American high, with easterly winds overlaid by general southerly flow at 200 mb. Speeds are very light and forcing is weak.

Over the past two days convection in has increased along and south of the equator, although it is disorganized, short-lived, and not very tall.

WRF cloud and precipitation forecasts continue to do very poorly with the mesoscale details. On Friday, a large area of stratocu covered the region near 5S, 95W moving south. The clouds and northerly winds (observed in a layer from 5 to 9 thousand feet) were not found in the model forecast, but were arguably the main feature found in satellite loops.

Research flight 14 from MROC is planned for Sunday the 19th to the NOAA ship along 95 W.
Low latitudes continue to have substantial convection as an active period appears to have begun. Convection tends to organize in an E-W line at about 6 S and at the equator.

Individual towers are nearly stationary during their short lifetimes, while cirrus moves toward the NW.
Convergent surface winds (albeit weak) are predicted for Sunday afternoon near and S of the Galapagos Islands.

A relative cool SST axis remains along the equator although it is only about 1 degree cooler than the surrounding waters. SSTs are substantially warmer to the east and north of the Galapagos.
36-h WRF forecast of precip, valid 18z Sunday.

Strongest convection is found along 95W and west of 110W.

The area south of the equator to 3S should have many shallow, short-lived convective rainstorms.
WRF forecasts multi-layered clouds along 95W from about 3N to 3S. In reality, clouds in this region are closely tied to the convection and WRF has shown poor performance with these clouds.
200 mb WRF streamline chart

Light, southwesterly flow is expected over most of the region. A southwesterly jet (with speeds up to 25 m/s) is located west of 98W approaching the NOAA ship location.
At 300 mb, winds remain southeasterly, influenced by the continental outflow. Synoptic forcing remains well NW of the target region.

The cirrus anvil will spread in a direction determined by how tall the cloud becomes. Tallest cloud’s anvils will head NE, while shorter cloud’s anvils will head NW.
Forecast CAPE seems to correlate pretty well with convective location and strength (i.e. height). The area along 95W has high potential for convection on Sunday.