Weather discussion for Thursday, February 23, 2012
Jim Bresch NCAR/MMM

Overview: The large upper-level high covering northern South America and all of Central America remains over the region and is expected to strengthen over the next few days, building northward into the southern U.S. Wind speeds at 200 mb are expected to weaken even further. The GFS indicated precipitation chances over the equatorial eastern Pacific will decrease over the next 5 days.

Weakly-forced convection is hard to predict, but there should be no large, organized clusters over the target areas. However, WRF indicates convection along 95W is likely.

Easterly trade winds will continue and northerlies are expected to develop north of the monsoon trough on Saturday.

Research flight 16 from MROC is planned for Friday the 24\textsuperscript{nd} to the NOAA ship near 5N, 95 W.
Strongest convection on the image this morning is near 4S, 100W. Other convective areas are just west of the Galapagos and along the monsoon trough from 3N, 98W to 5N, 90W.

Animations show very little movement to the convective updrafts today. Anvils are blowing off to the NE north of 4N and the the SE west of 100W.
Weak surface winds are found south of 10N with slightly convergent winds along the monsoon trough at about 4N.

SSTs continue to warm over the region with relatively cool waters near EBDEL and along the equator. 30 deg C water extends from Panama to the Galapagos. With high SSTs near RADIM.
Scattered, weak convection is expected near 4N between 93 and 97W. Other storms are along the equator near and west of the Galapagos.

Additional convection is predicted in a band near 5S and 996 to 102W.
The moister version of WRF suggests light rain is possible near the monsoon trough and immediately west of the Galapagos. However, this run seems drier than in recent days.

Convection is also expected near RADIM.
Explicitly-predicted clouds are few and far-between. However, some are near the monsoon trough at about 97W. This cloud product has done poorly with the weakly-forced convective clouds in the equatorial region.
200 mb WRF streamline chart

Generally, SW flow is over the region with wind speeds decreasing from the past few days. WRF suggest a sharp trough along 94W, with anvil blowing in opposite directions on either side of the trough. In any case, the airmass at FL390 should be of Pacific Maritime origin.
At 300 mb, winds are light and variable. Over the next 2 days wind directions will change along 95W, with westerlies becoming more prevalent.
CAPE is relatively weak over the area compared to recent days with highest values from 4N, 97W to RADIM.