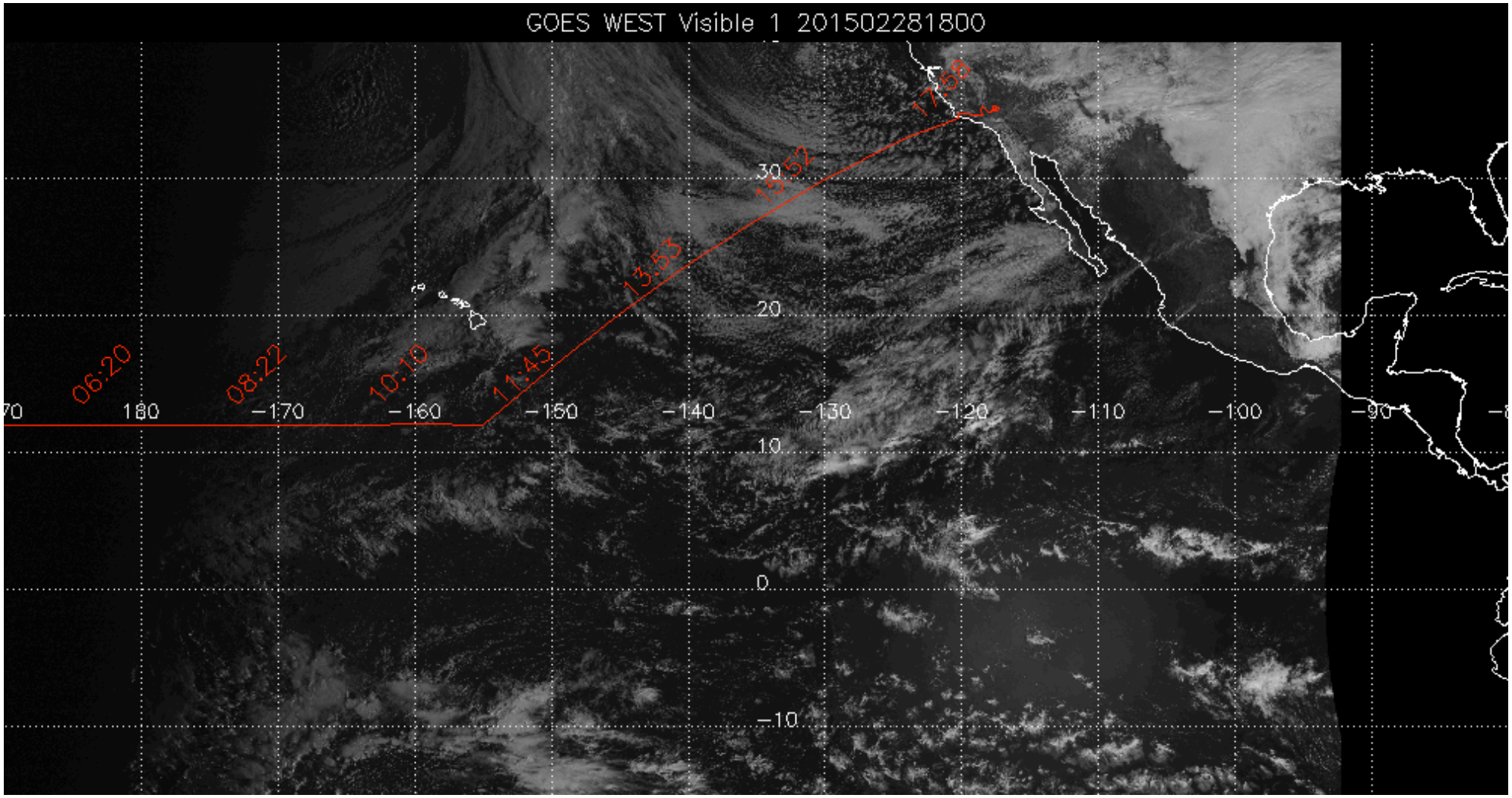
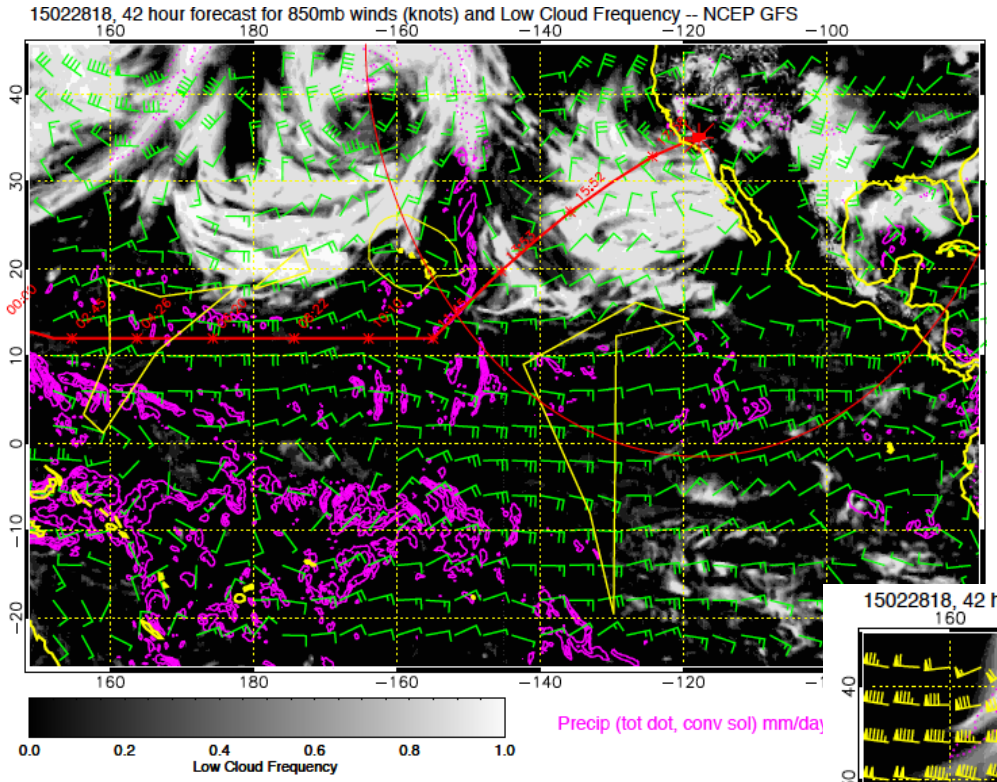
WX briefing, 20150301

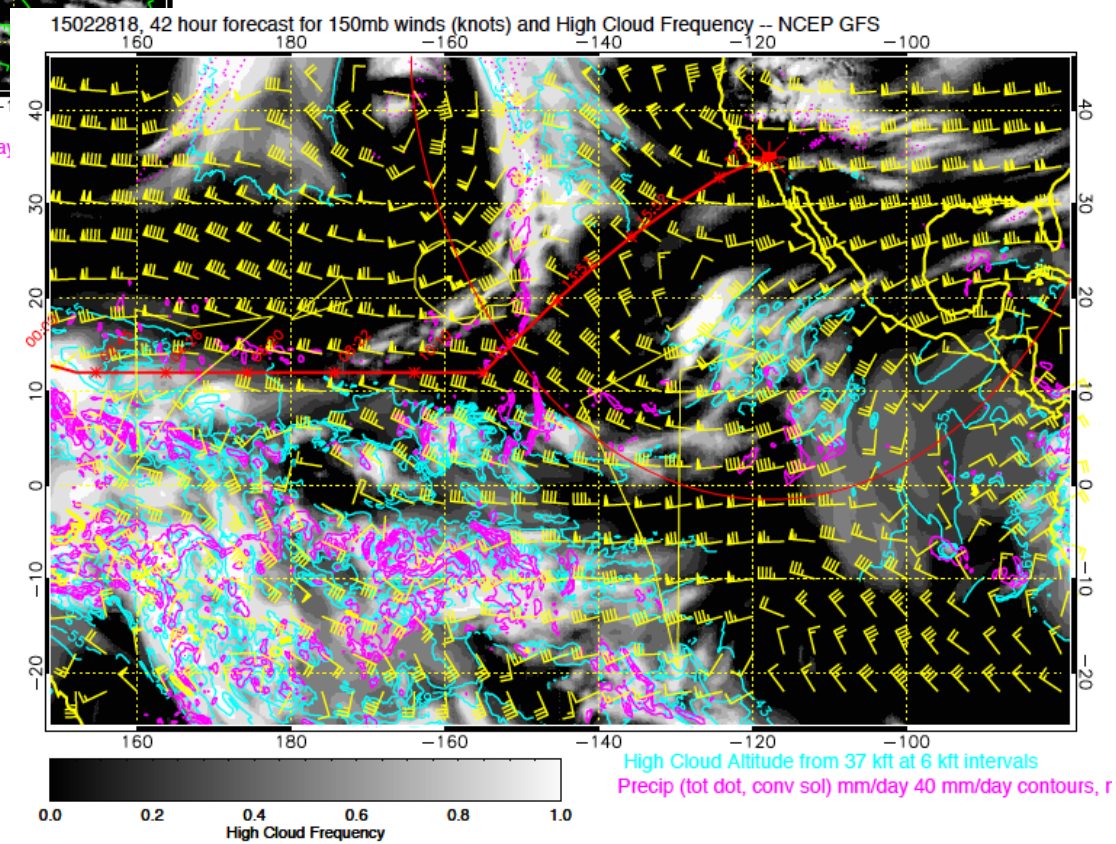
Forecast issues:

- Clouds along the flight track
- TTL cirrus, where is it?
- TO/Landing
- Air masses

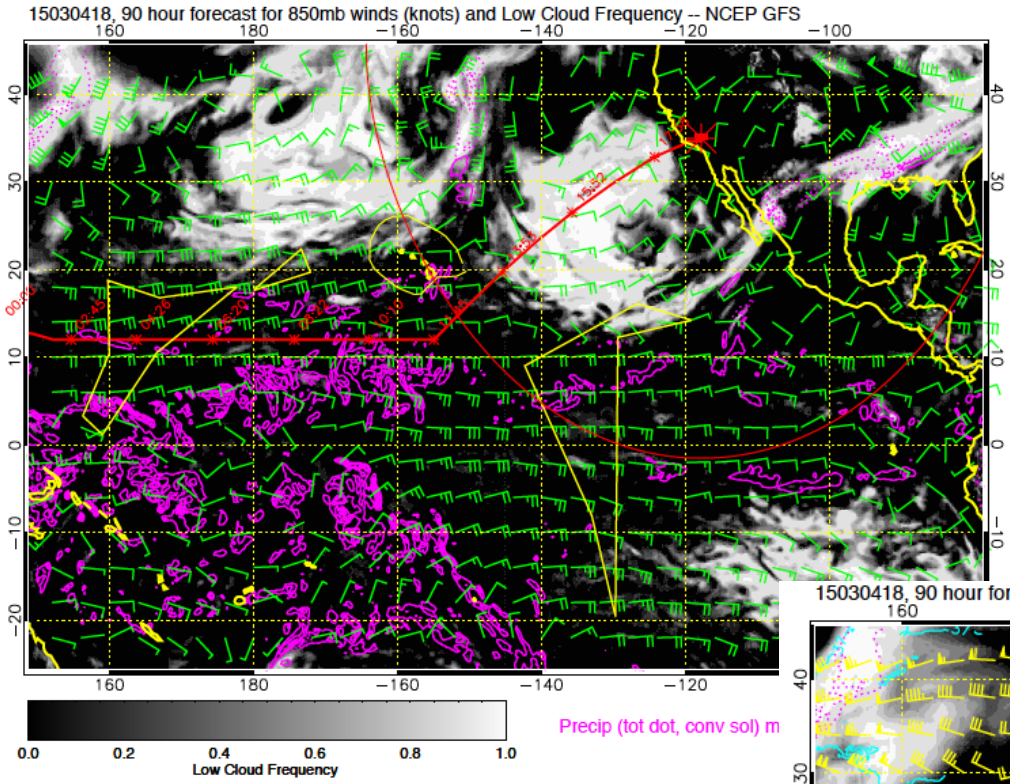


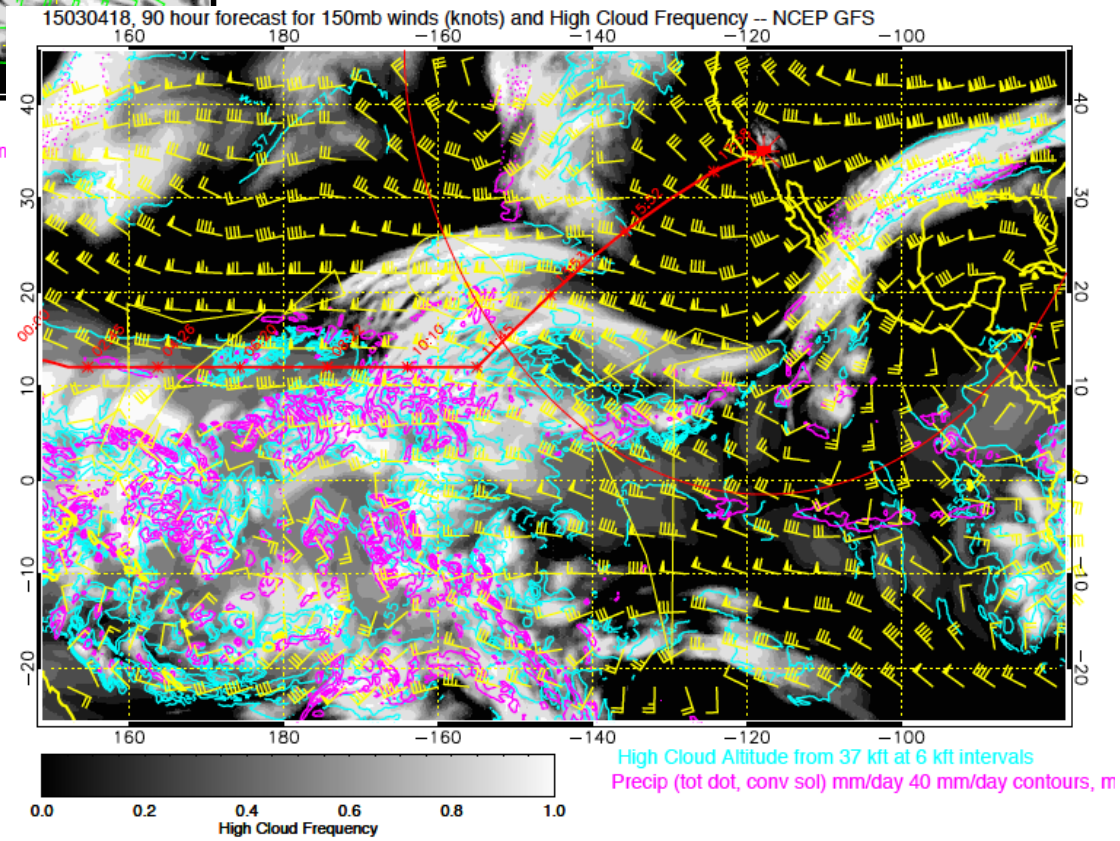
Visible image yesterday at 10 AM.



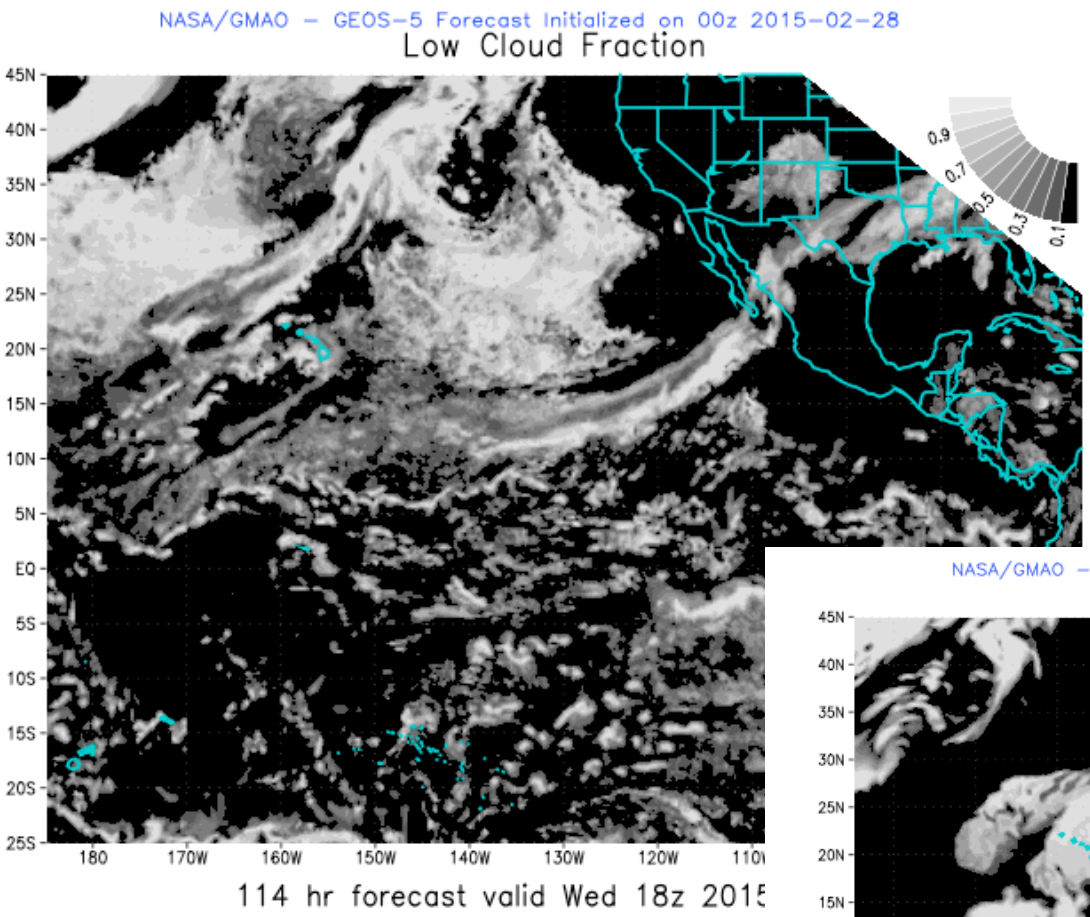


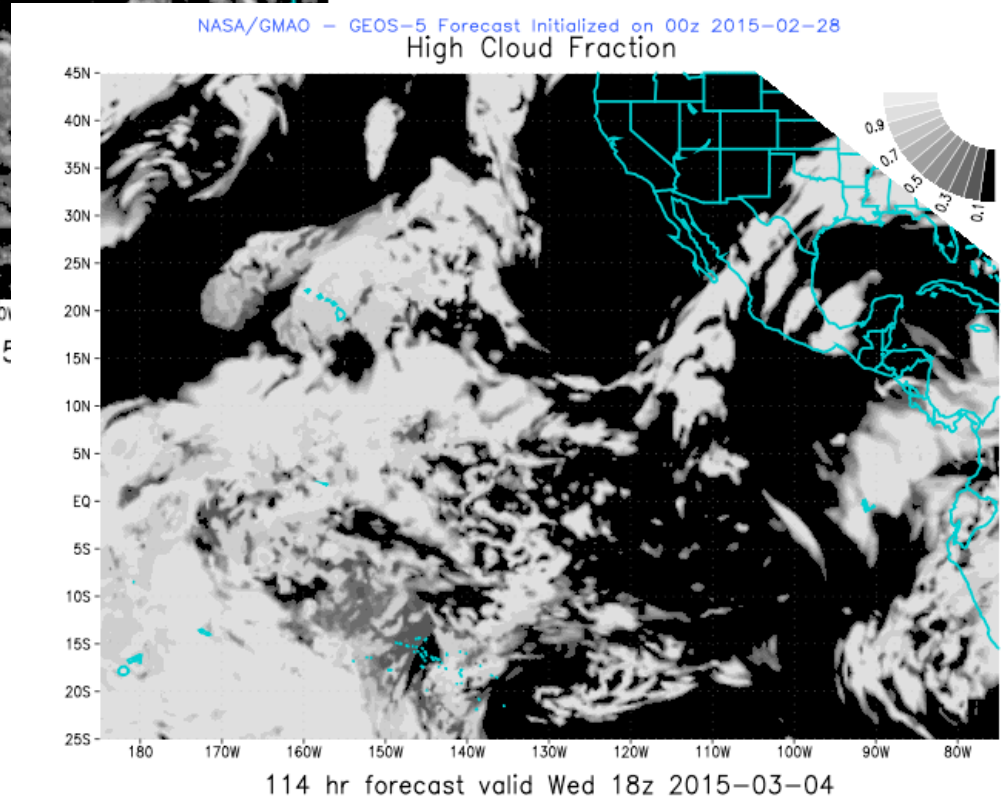
Situation yesterday (previous slide) on visible channel, which is not badly captured by the 42 hour forecast from GFS. Cold southward flow in the eastern Pacific boosted by the recent waves over our area yield extensive stratocumulus, and onshore flow stacks that stratocu up against the shore.



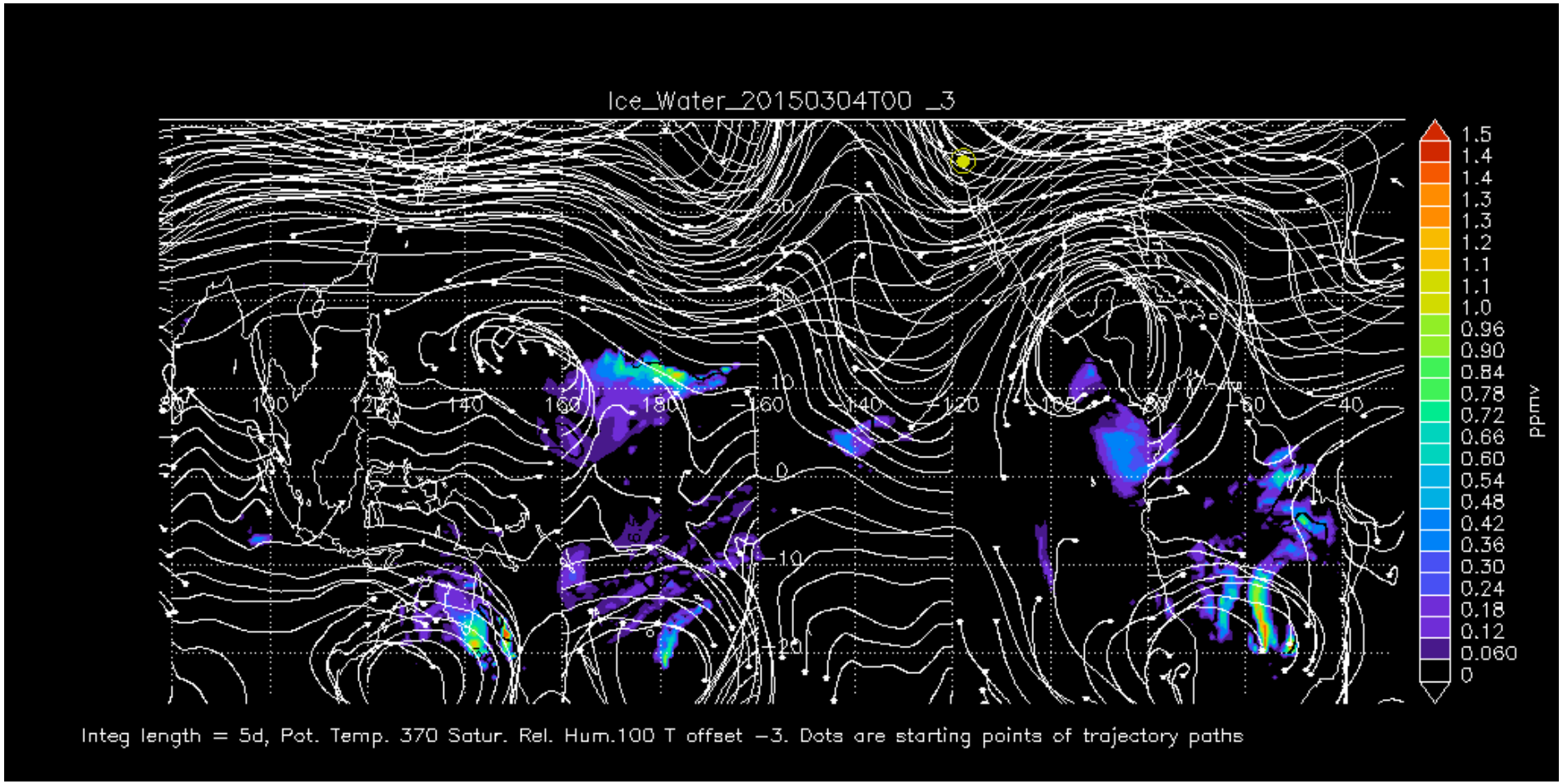


Situation at 10 AM Wednesday is not that different, except offshore flow has formed at the northern end of the flight track, pushing stratocu away from shore. GEOS-5 has a larger clear area than GFS. We can argue that, on the way back, we should be as close to shore as possible. There is some convection CURRENTLY (and forecast) near 270 and 5N.

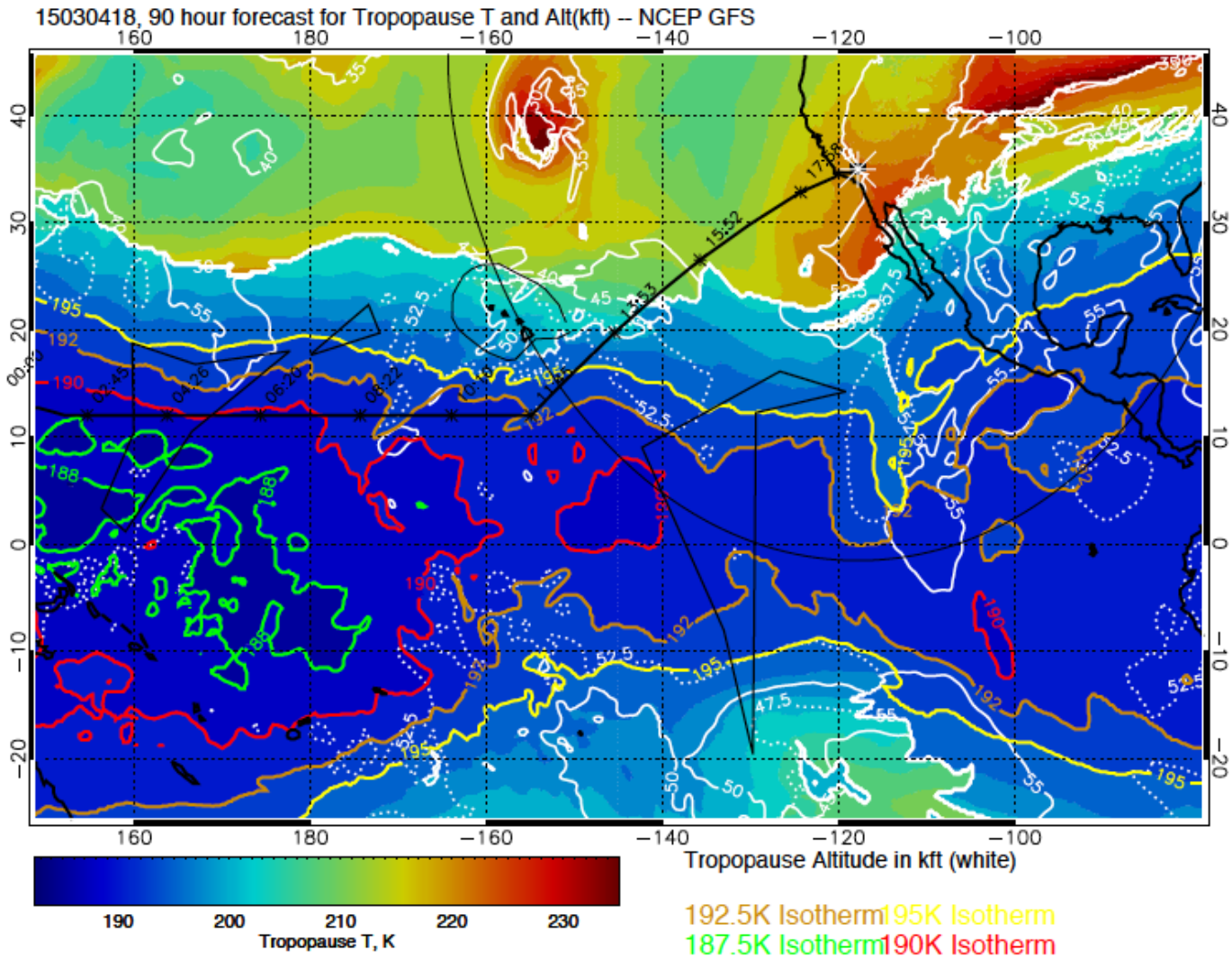




GEOS-5: Similar structure to low clouds as GFS, but with a larger clear area offshore. High cloud forecast is similar to GFS also



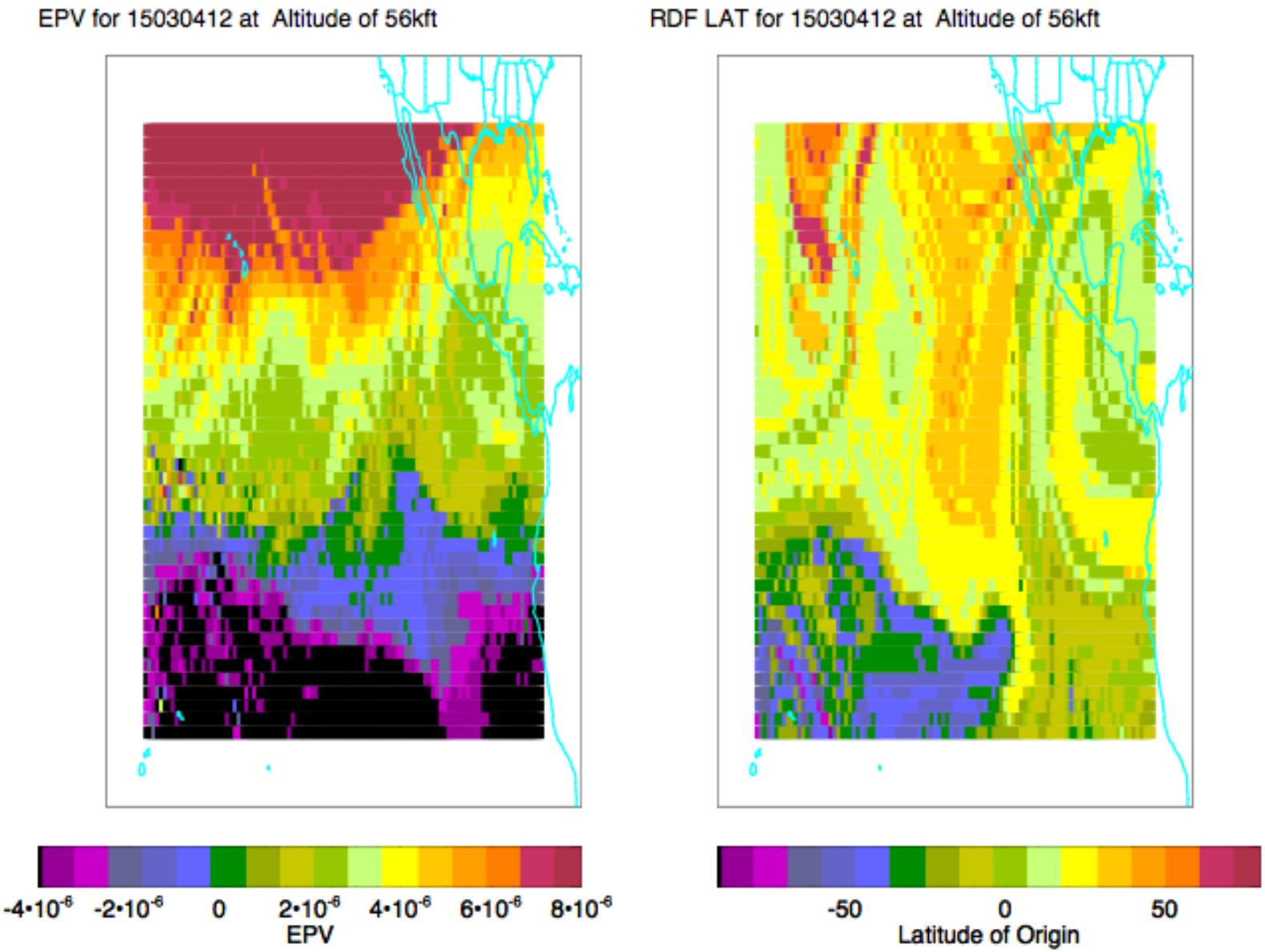
Latest info for cloud ice water forecasting in the TTL is for 4 hours before TO. Can expect some TTL cirrus near the end of the flight track to the SE. Forecasts suggest that the tropopause is warming slightly between 0Z and 18Z (when we will be down there). Except for the feature near 5N and 140W, everything else is out of reach.



The weight of the cold temperatures has definitely shifted west in this forecast. Temperature anomalies (not shown) show negatives near 140W, and at 10N along our flight track. Equatorial anomalies in the eastern Pacific are positive.

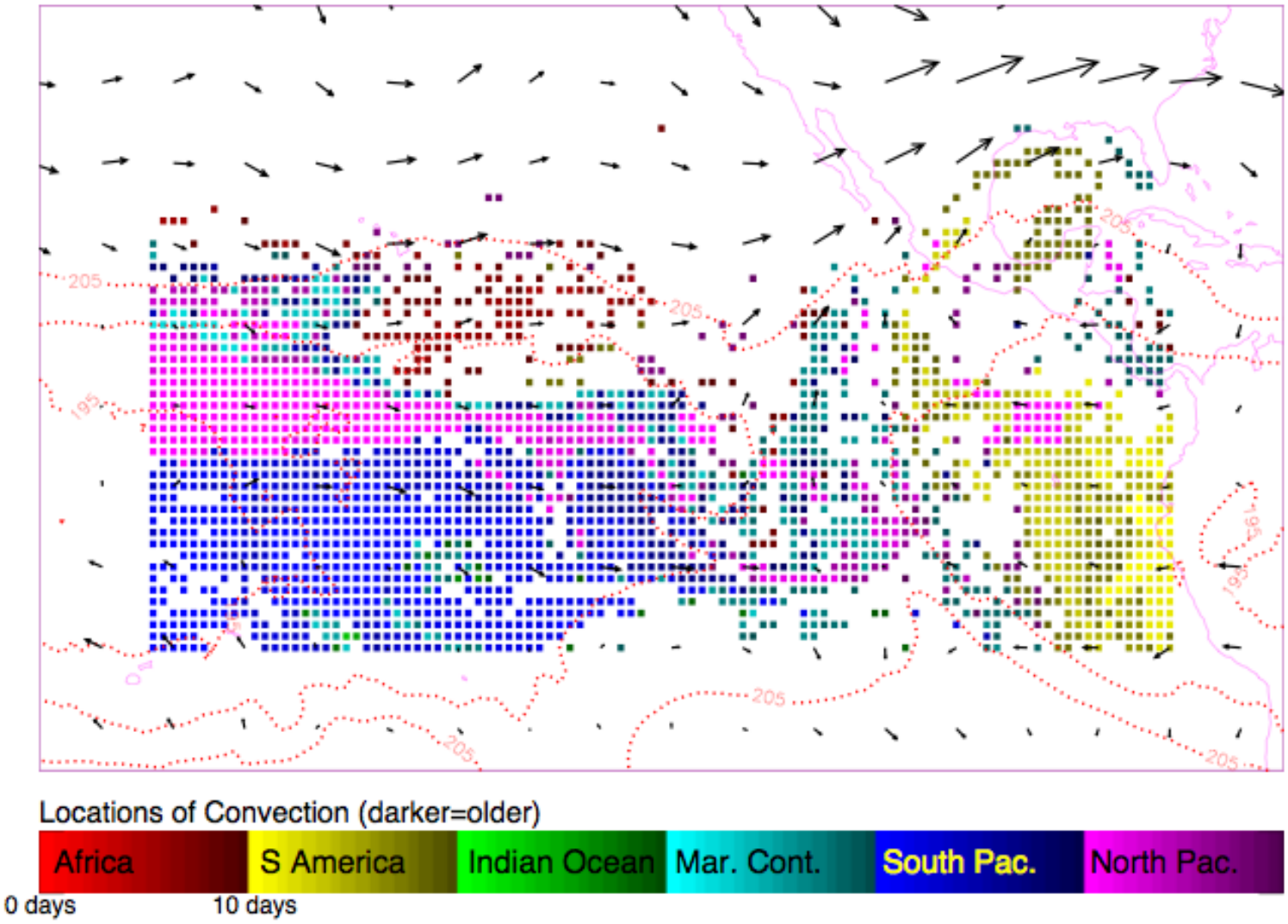
TO/Landing

- Sky and precip conditions look good
- Perhaps a 10 knot crosswind component on takeoff (winds at 12 knots from the WNW).
- Winds shift to northeasterly (down the runway) by landing



As in the older forecasts, all altitudes show a strong gradient in air masses, even above 100mb, associated with a high level trough.

Origin of Convectively Influenced Air at 15030412 on 359 surface



At 47 kft (near bottom of GH dives), we see a mixture of convectively influenced air masses, including South American, northeast Pacific, and maritime continent convective outflow. Possibly some African air as well. At 52kft, convective influence is less, and is mostly from South America.