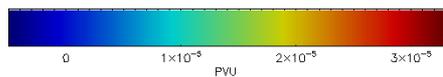
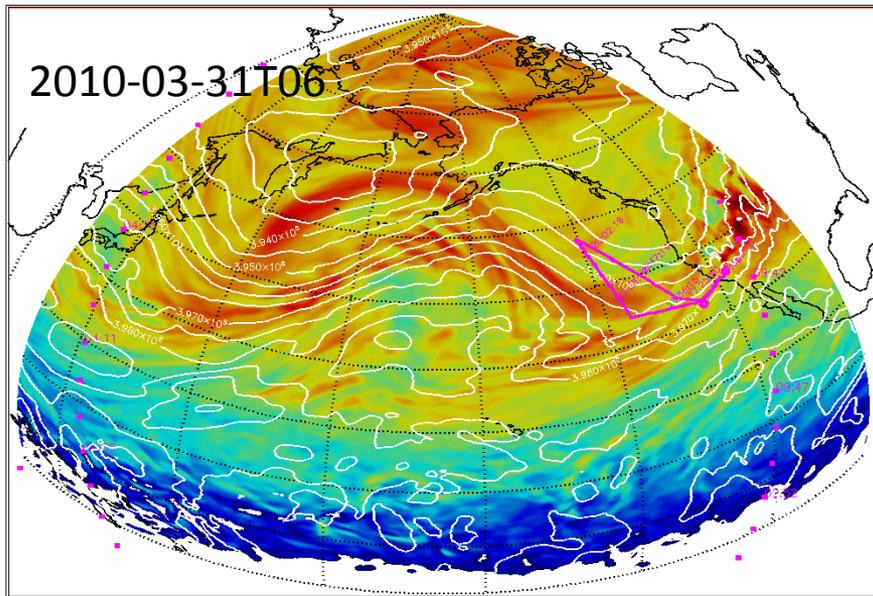


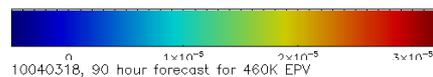
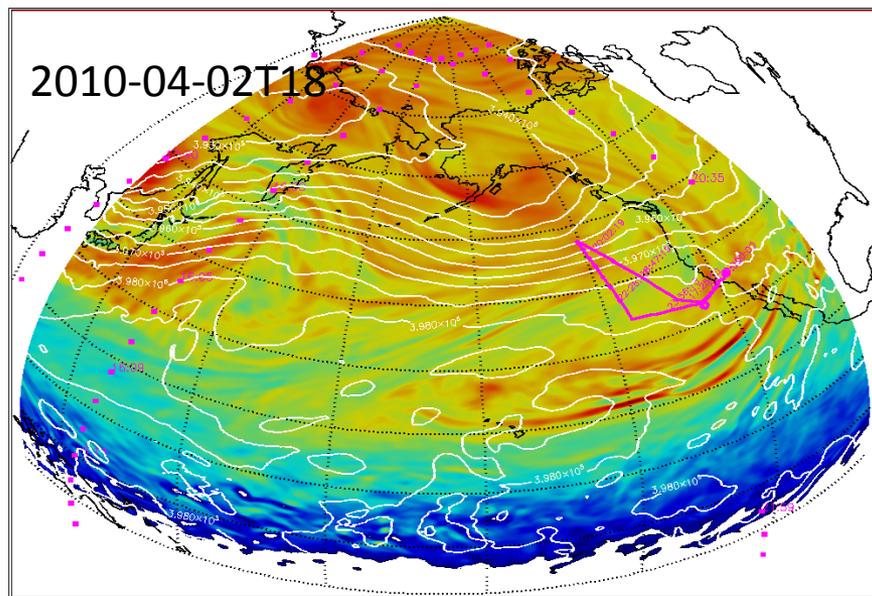
Met Science Outlook

Friday, 4/2/2010

Saturday, 4/3/2010

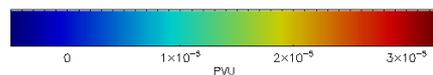
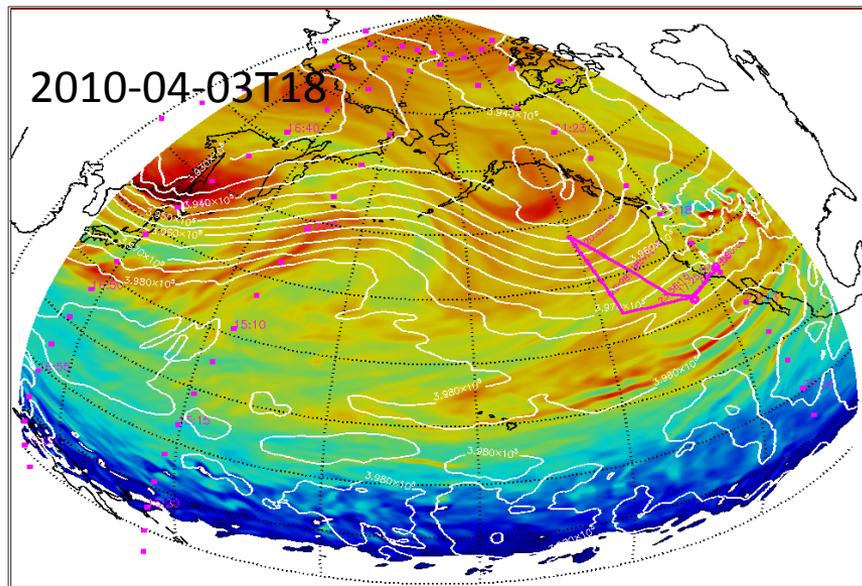


460K Montgomery Streamfunction, white



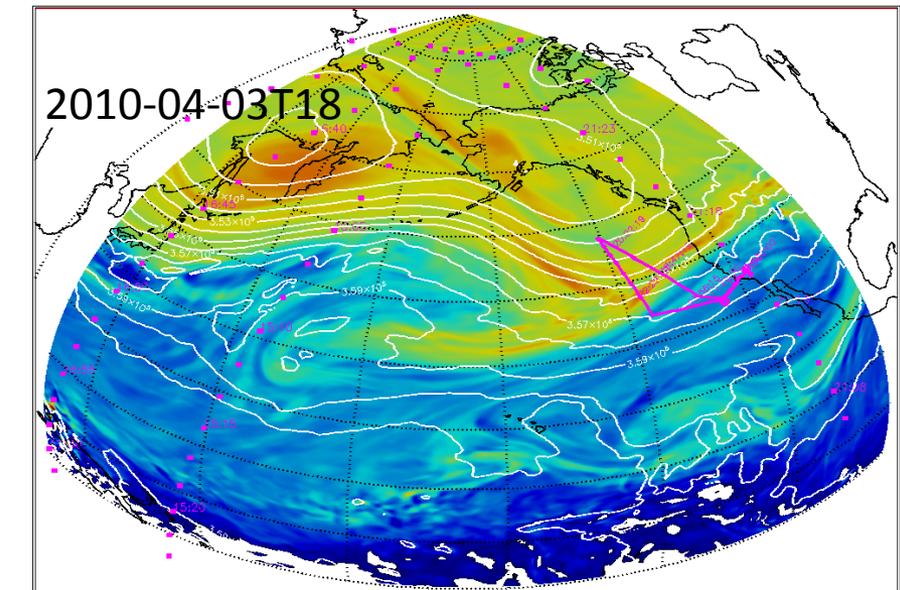
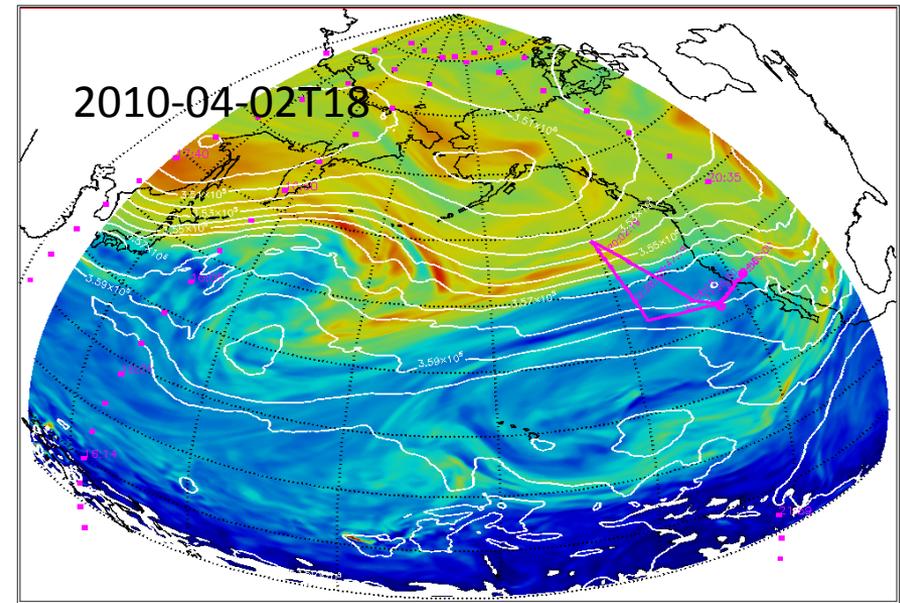
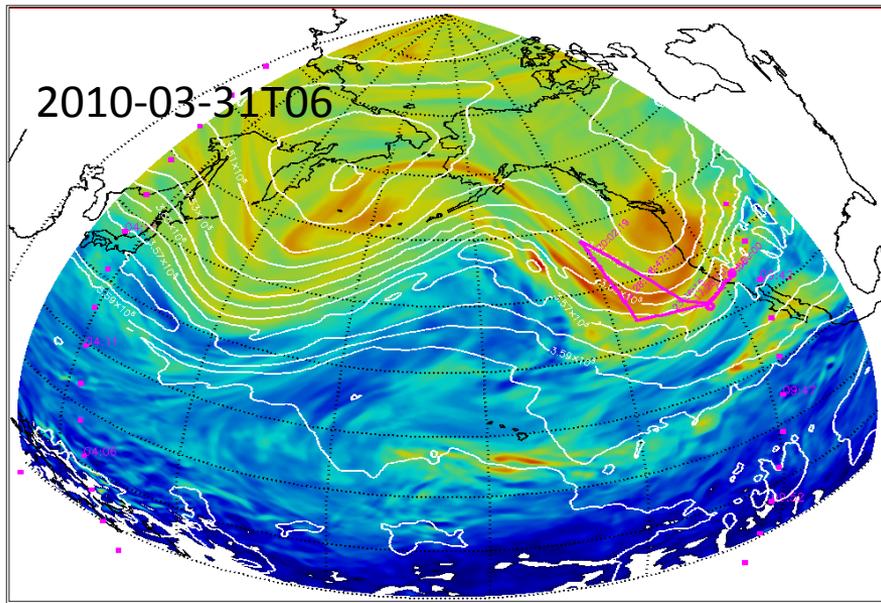
460K Montgomery Streamfunction, white

10040318, 90 hour forecast for 460K EPV

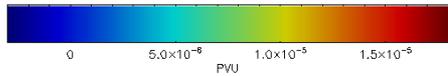
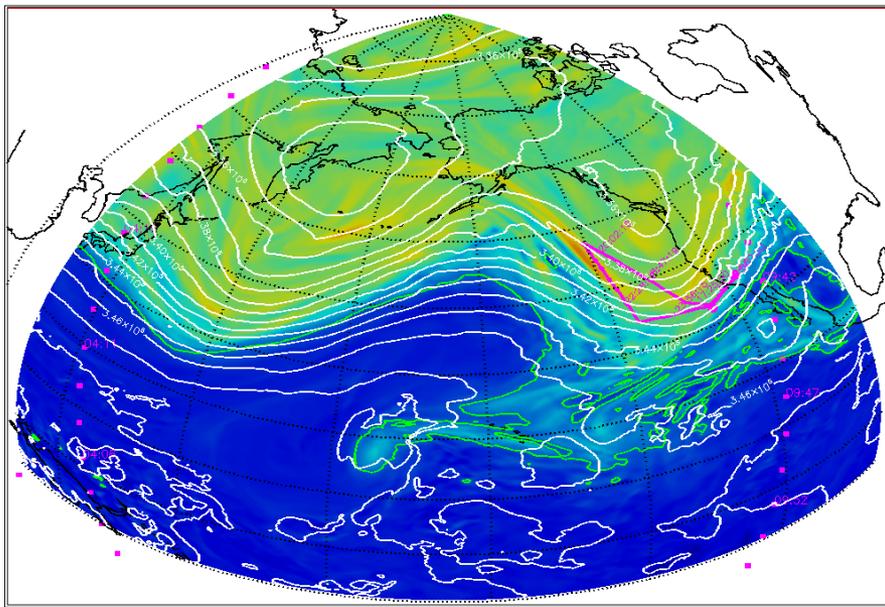


460K Montgomery Streamfunction, white

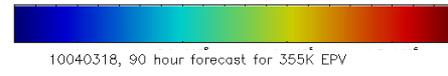
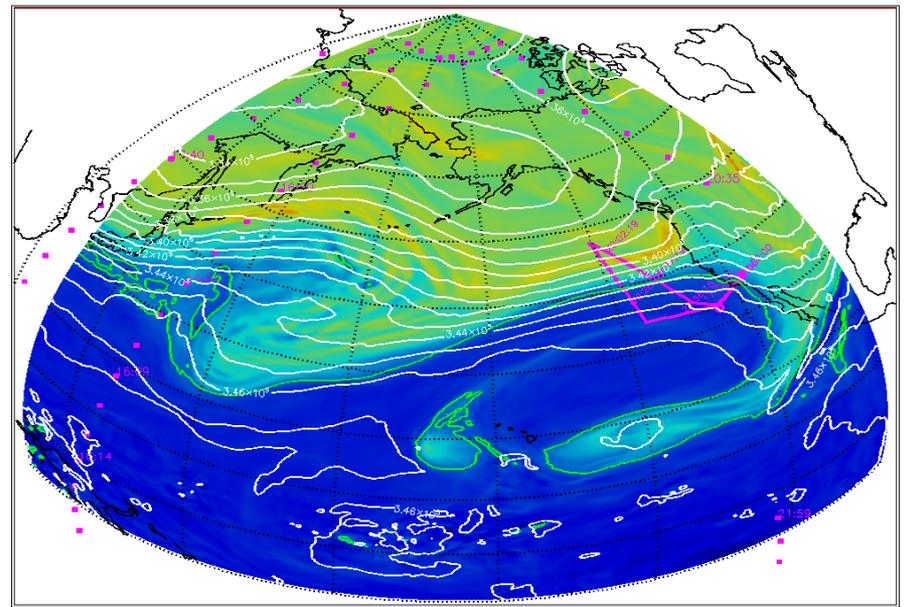
460K (~60kft) shows a distended vortex fragment in an anticyclonic arc over the North Pacific centered just east of the dateline (top left). By Friday (top right), pieces of this arc are over our location, brought there by the building anticyclone now centered nwn of Hawaii. These pieces continue to settle over our location Saturday (bottom right). Note a new piece of vortex, recently broken off, sitting north of Japan which will be heading our way (bottom right). Aura passes Over us at ~2 PM on this day.



Same EPV diagrams, except at 380K (53kft). Faster winds at this altitude have vortex fragment nearly over us, and anticyclone over The North Pacific is displaced eastward (as expected from theory – above left). The wave breaks, moving some high PV material west of Mexico, leaving Dryden at the edge of low PV air from the subtropics (Friday, top right). By Saturday (bottom right), we are well into low PV air at this altitude. Note high PV feature off Asian coast which will be heading our way.

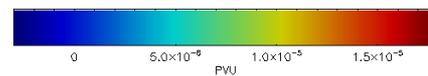
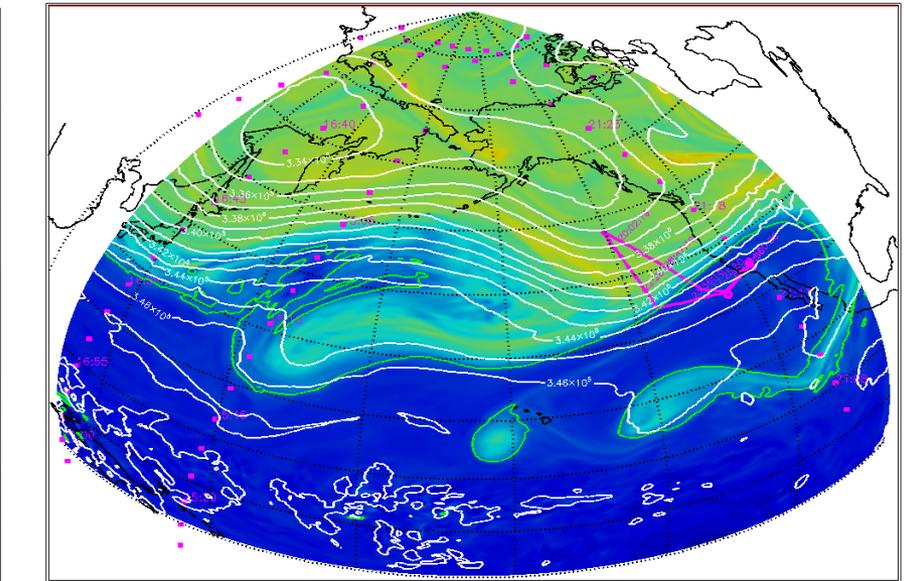


355K Montgomery Streamfunction, white
EPV Tropopause (2 PVU) Position

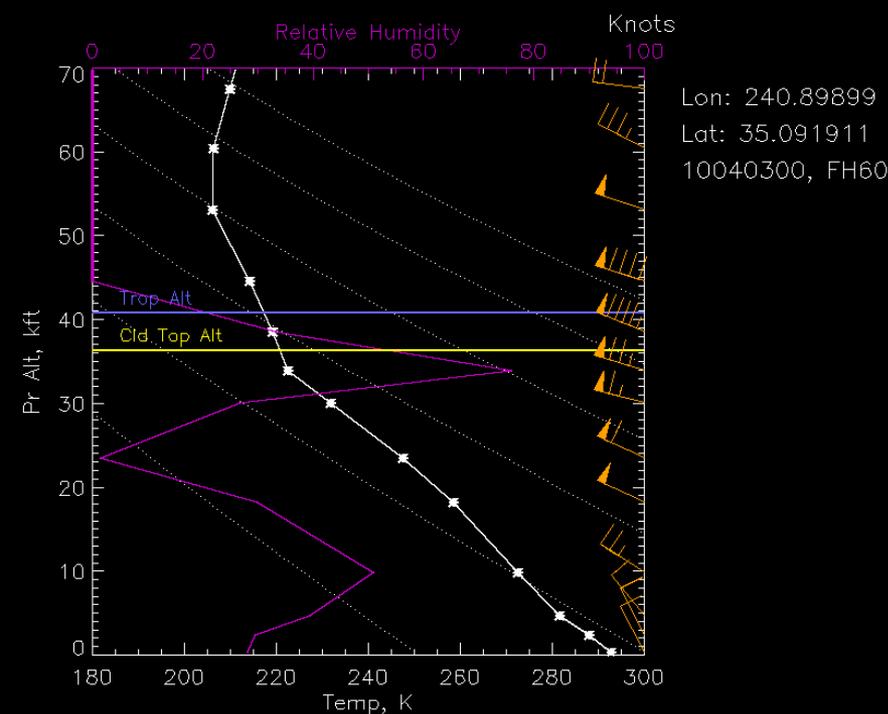
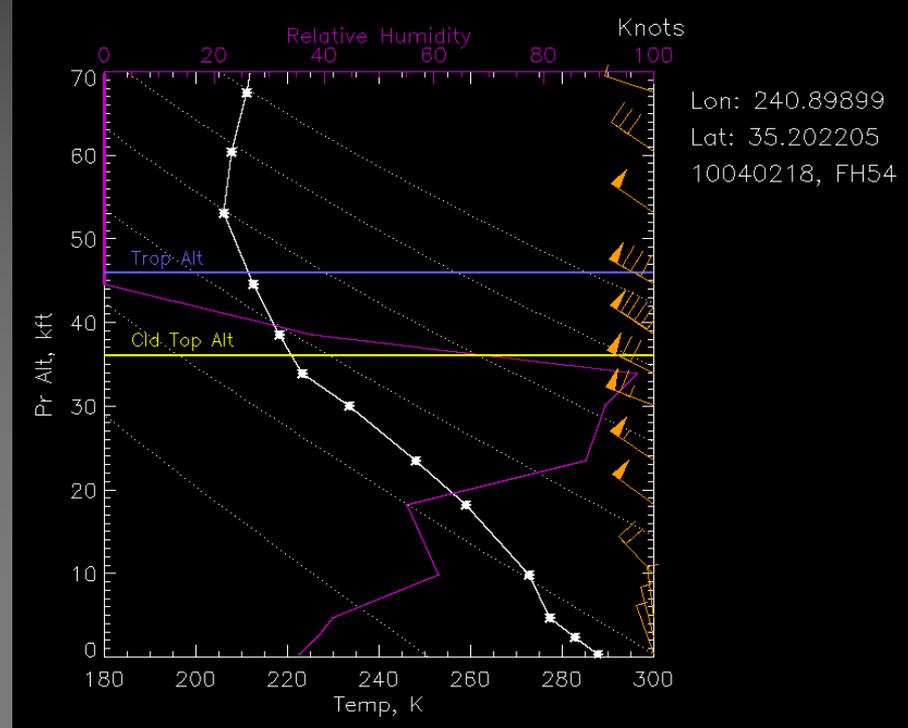
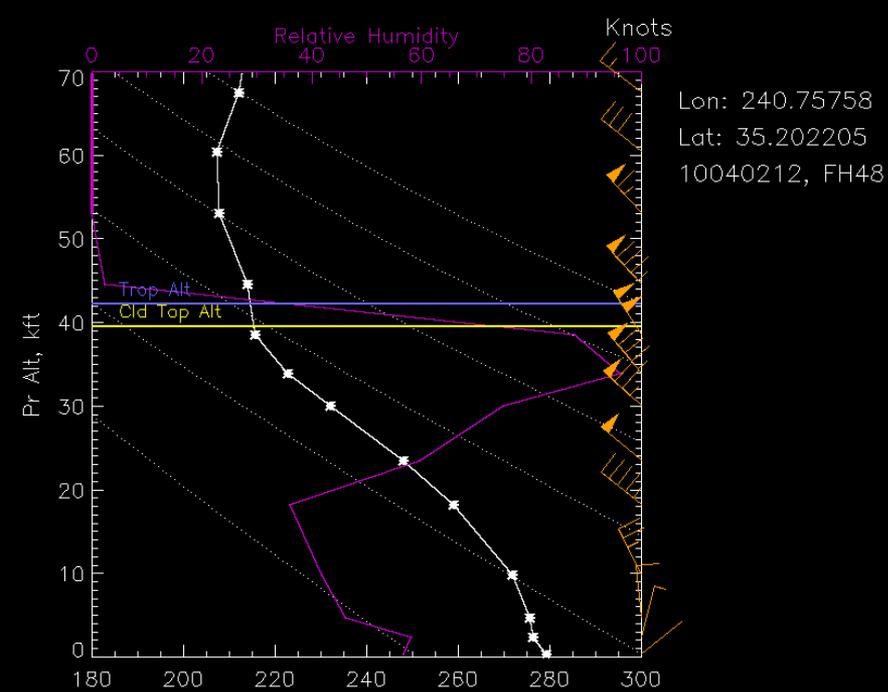


355K Montgomery Streamfunction, white
EPV Tropopause (2 PVU) Position

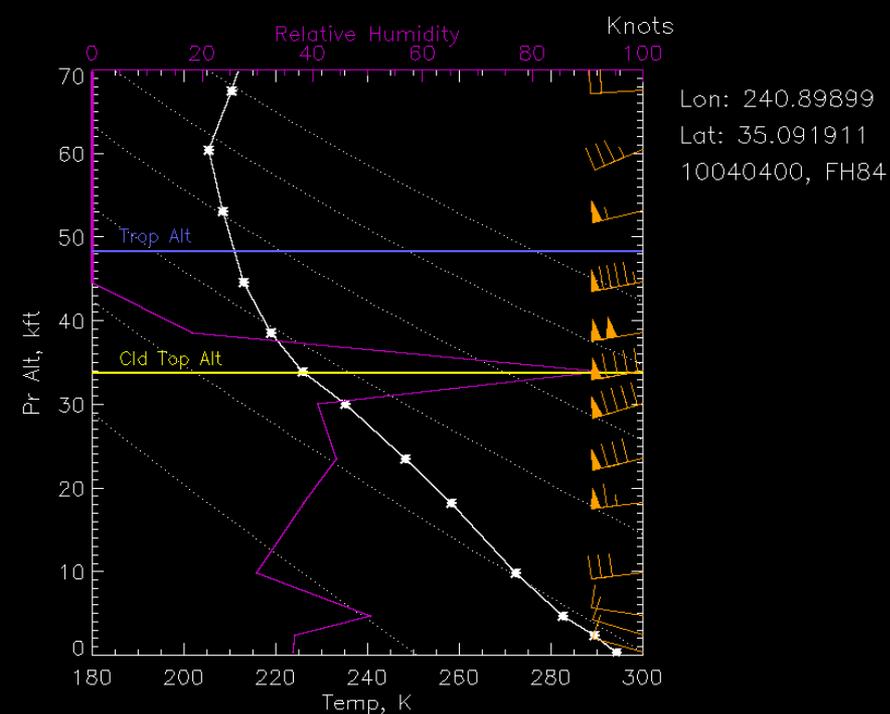
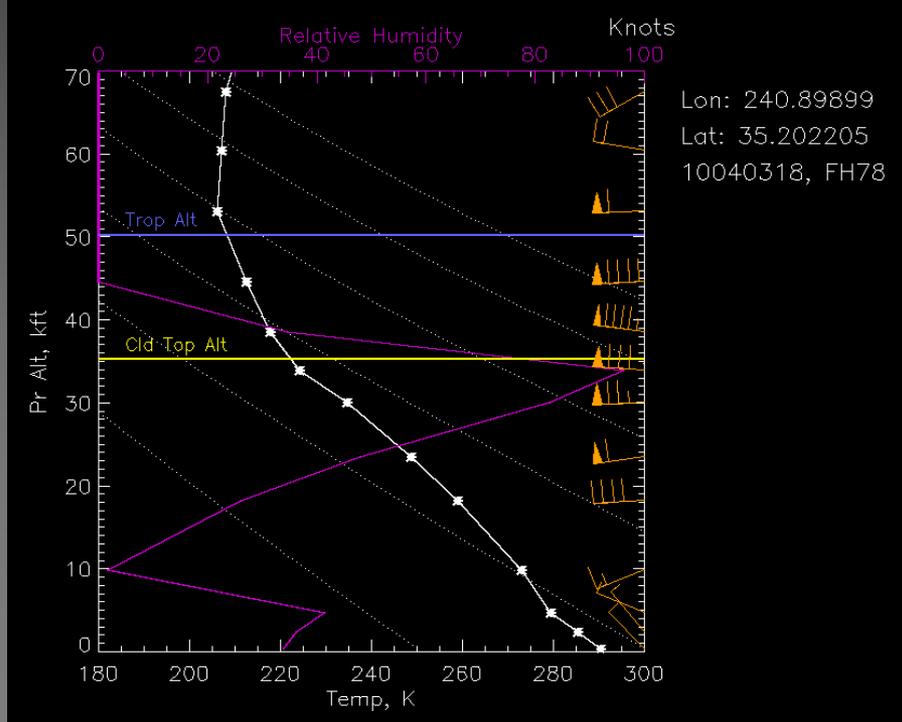
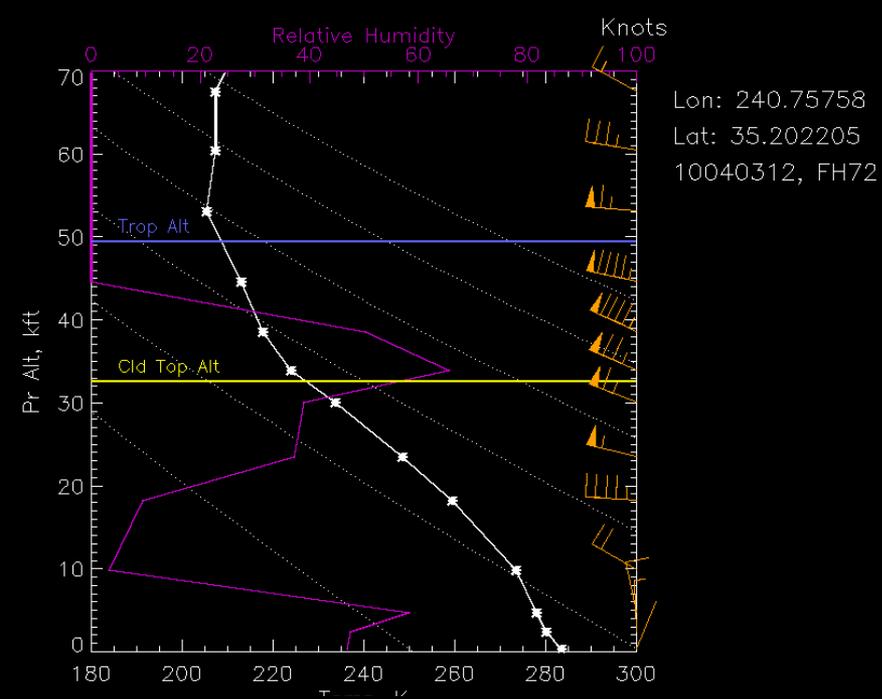
Same basic picture at 355K (43 kft), except without any significant vortex PV. Dynamics here is Tropospheric jet dynamics. We start with a trough off the west coast and a ridge north of HI, with some lower stratospheric air fragments in the subtropics from previous wave breaking events (top left). The current wave breaks, putting more material into the subtropics (top right), leaving us at the edge of tropospheric and stratospheric air (green line is EPV trop). Saturday (bottom right) we are well into the troposphere at this altitude.



355K Montgomery Streamfunction, white
EPV Tropopause (2 PVU) Position



Vertical profiles for Friday at DFRC. The clouds are thin cirrus. There is a possibility of light turbulence below 39kft (jet stream turbulence). I do not see mountain wave activity at this time.



Profiles at Dryden for Saturday. Again, clouds are thin cirrus. Jets are strong, but only light CAT expected. Might have some mountain Wave activity in Saturday afternoon (late).