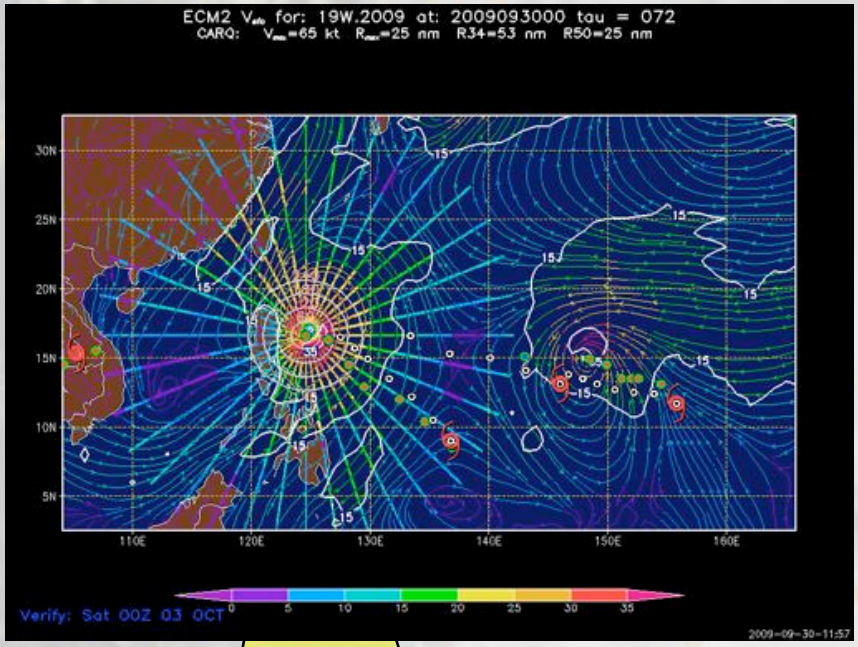
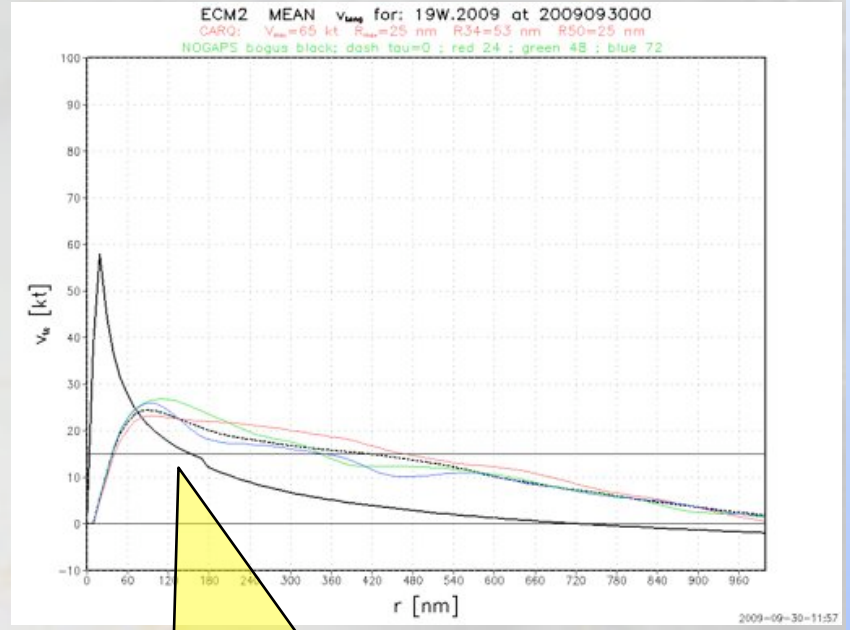
ESRL HFIP TC diagnostics – tctrack, tcstruct



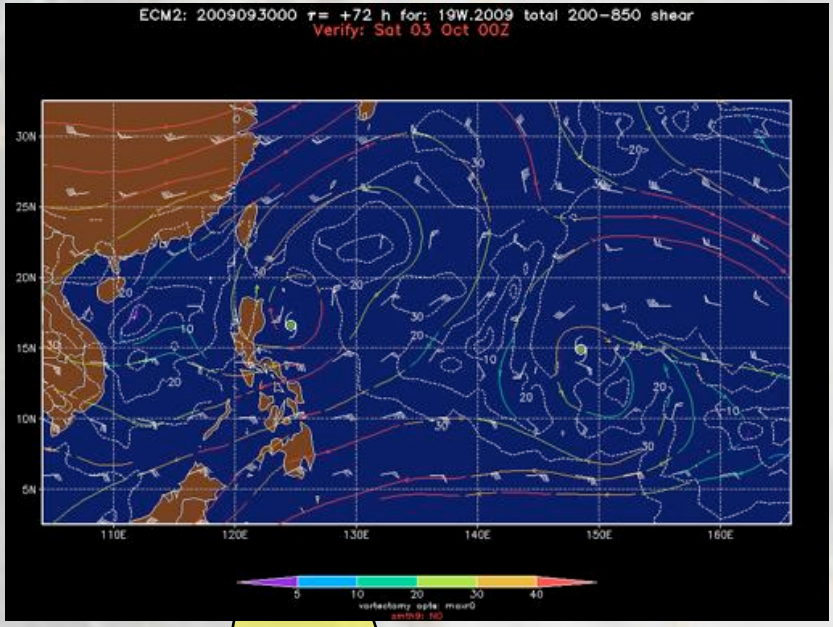


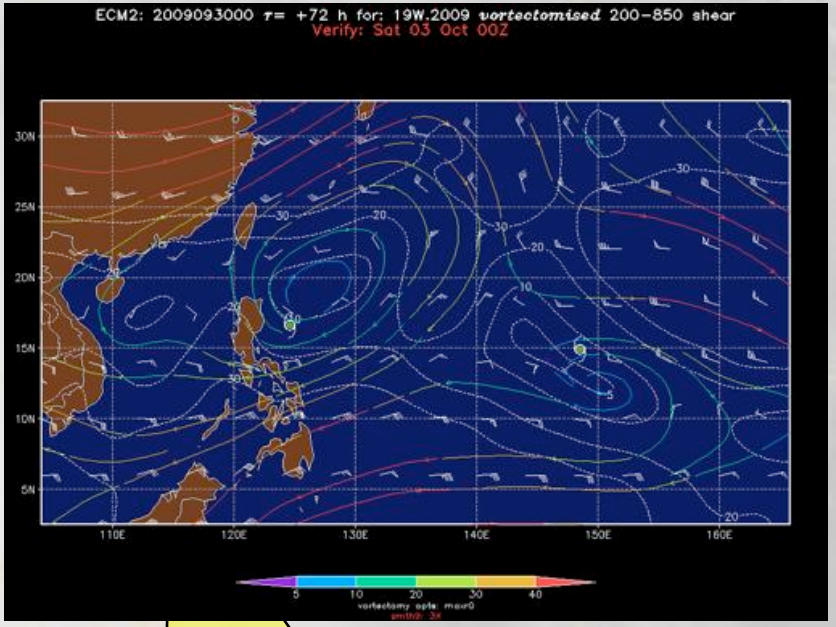
19W – 2009093000
ECMWF 72-h sfc wind forecast
black-white dot = JTWC forecast
green-blue dot = model sfc wind center
green-red dot = model 850 vort center

radial sfc wind speed profile at tau=0,24,48,72 (blue)
wind profile used in the NOGAPS TC wind retrievals in black + vortex properties from the CARQ (TC vitals)

next step – mfhilo and tcprop functions to locate and find detailed properties of vortex, e.g., ROCI (radius of outermost closed isobar) & POCI (pressure)

ESRL HFIP TC diagnostics – tcfilt (vortectomy)





19W – 2009093000
ECMWF 72-h forecast – 850-200 shear
full or with vortex

19W – 2009093000
ECMWF 72-h forecast – 850-200 shear
full or without vortices (19W & 18W) – or vortectomized
shear for 19W ~ 10 kt, 18W ~ 7 kt

next step – use vortectomized fields in LGEM for five global models: GFS + FIM + ECMWF + NOGAPS + UKMO → consensus LGEM