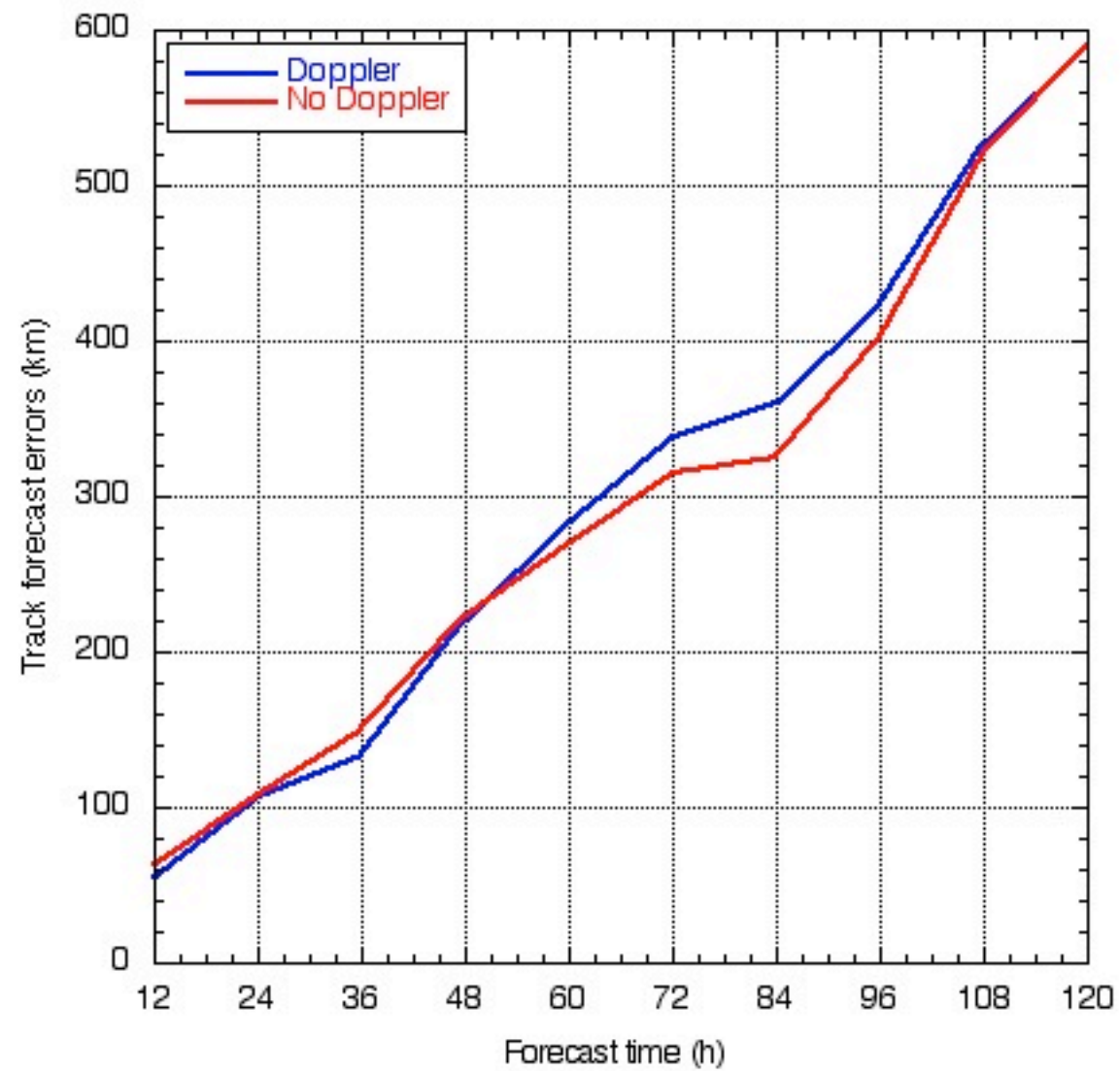
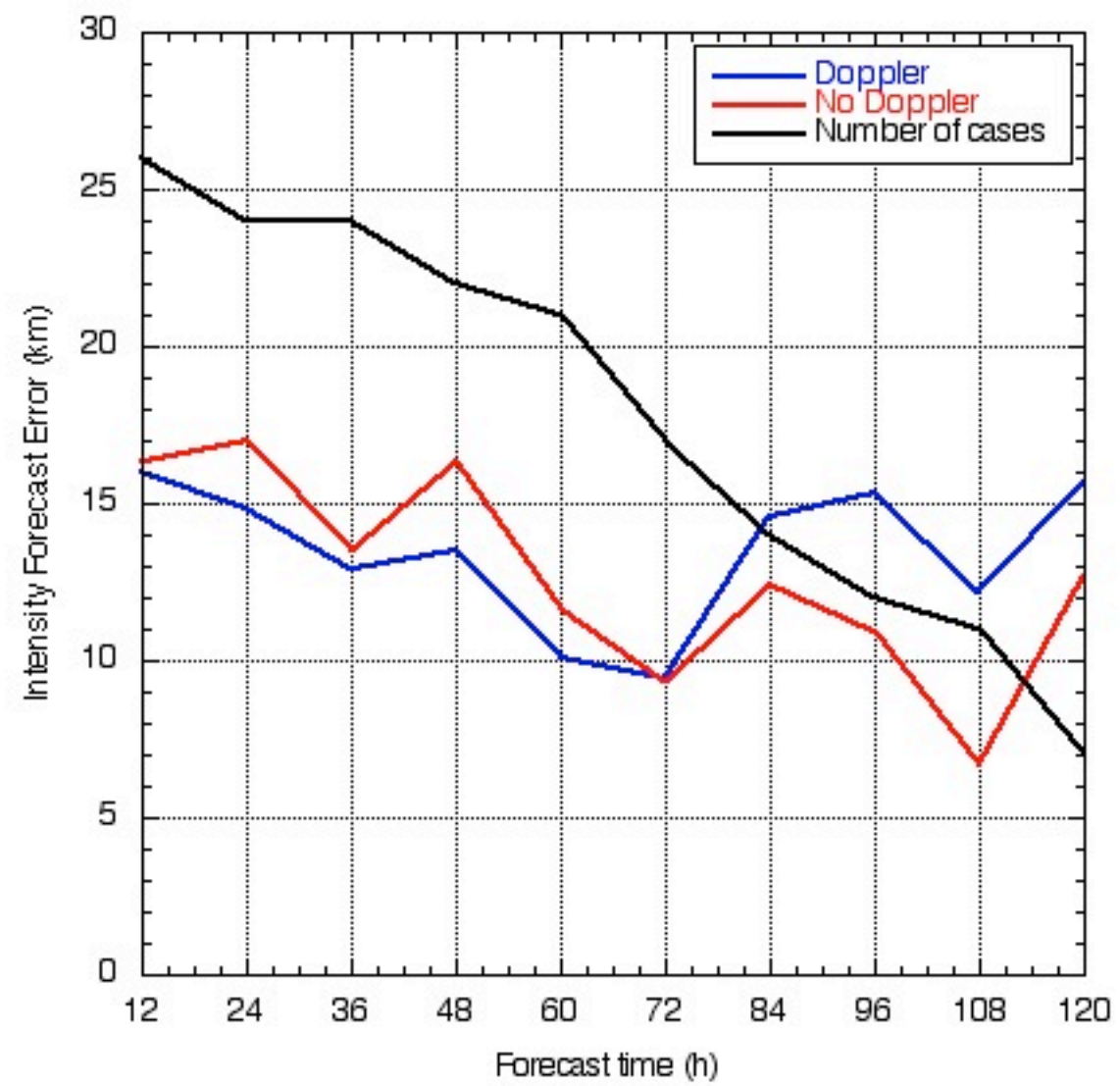


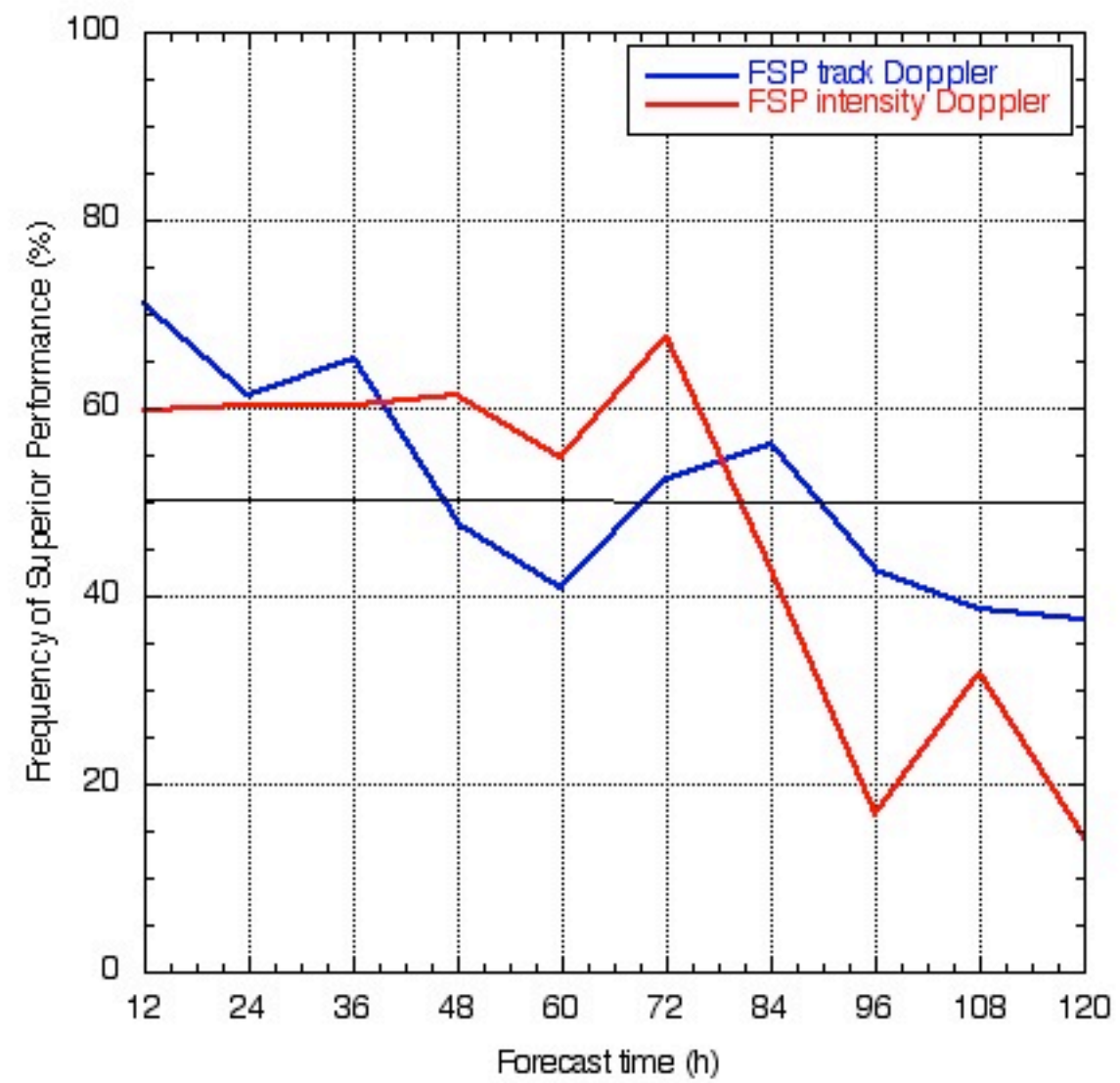
Airborne Doppler Radar Data Assimilation Retrospective

Sim Aberson, Altug Aksoy, Lisa Bucci, Sylvie Lorsolo,
Thiago Quirino, Kathryn Sellwood, Jeff Whitaker, Vijay
Tallapragada, Xuejin Zhang, Zhan Zhang

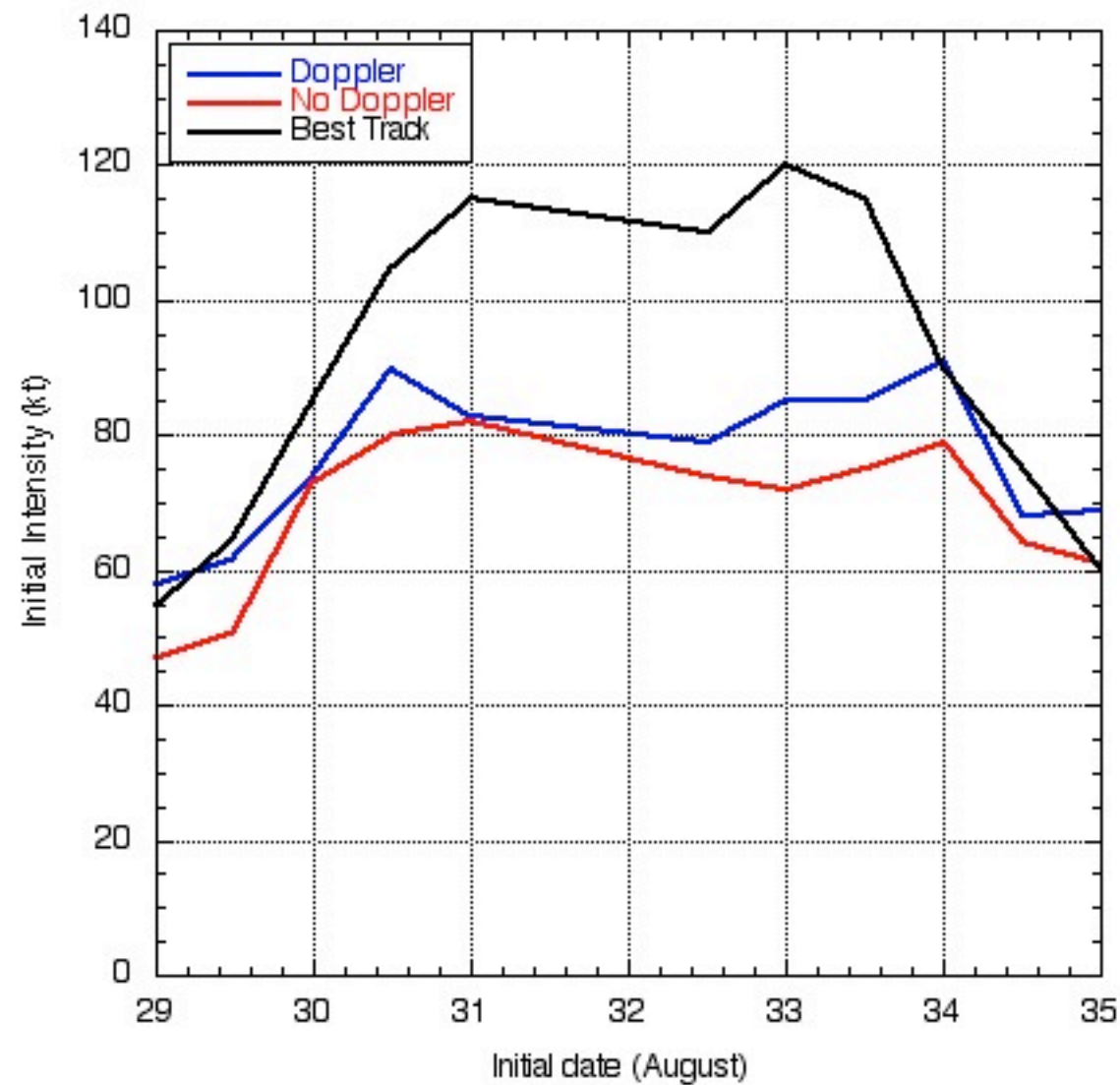
All of 2010, Paloma, half of Bill



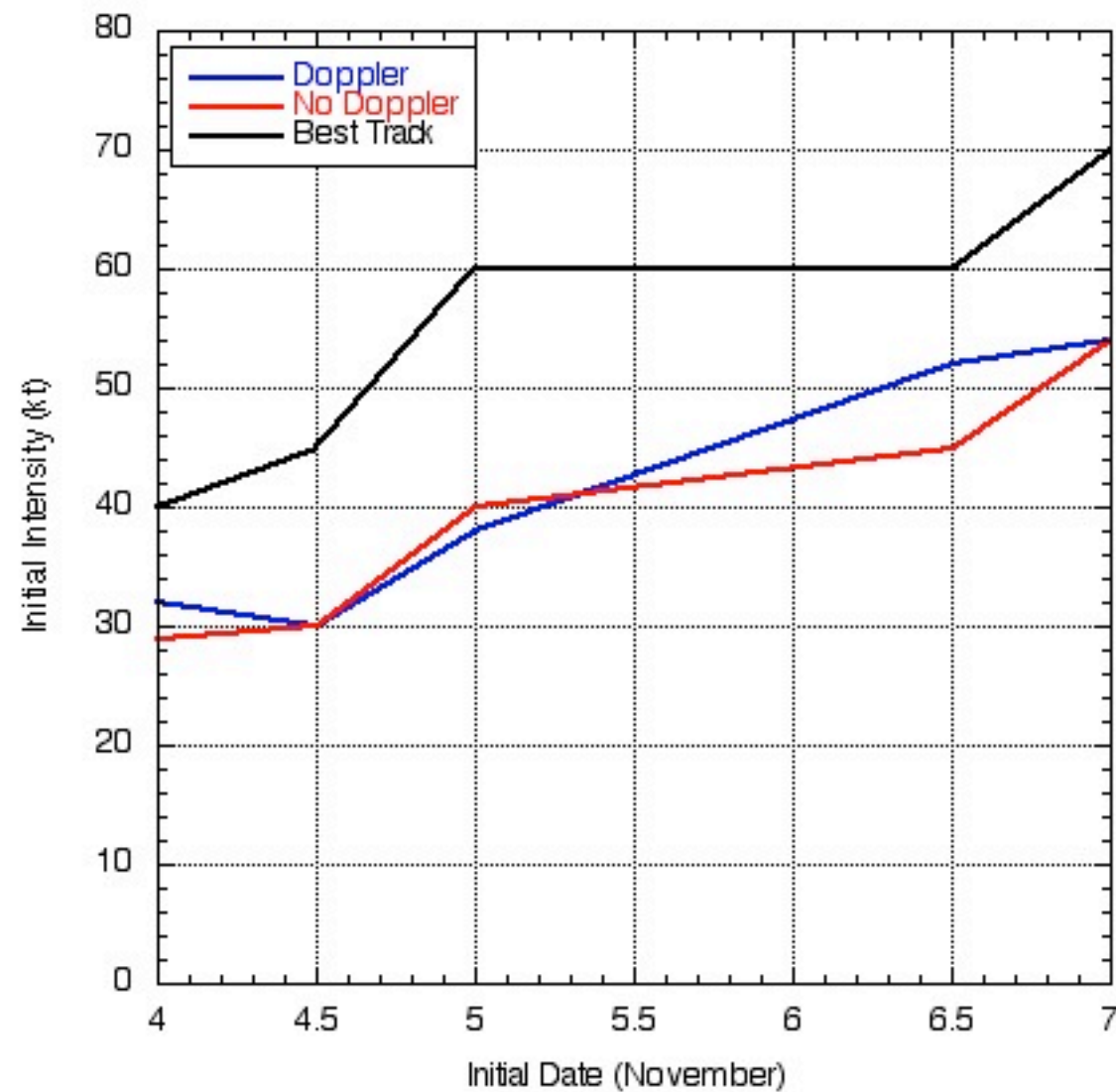




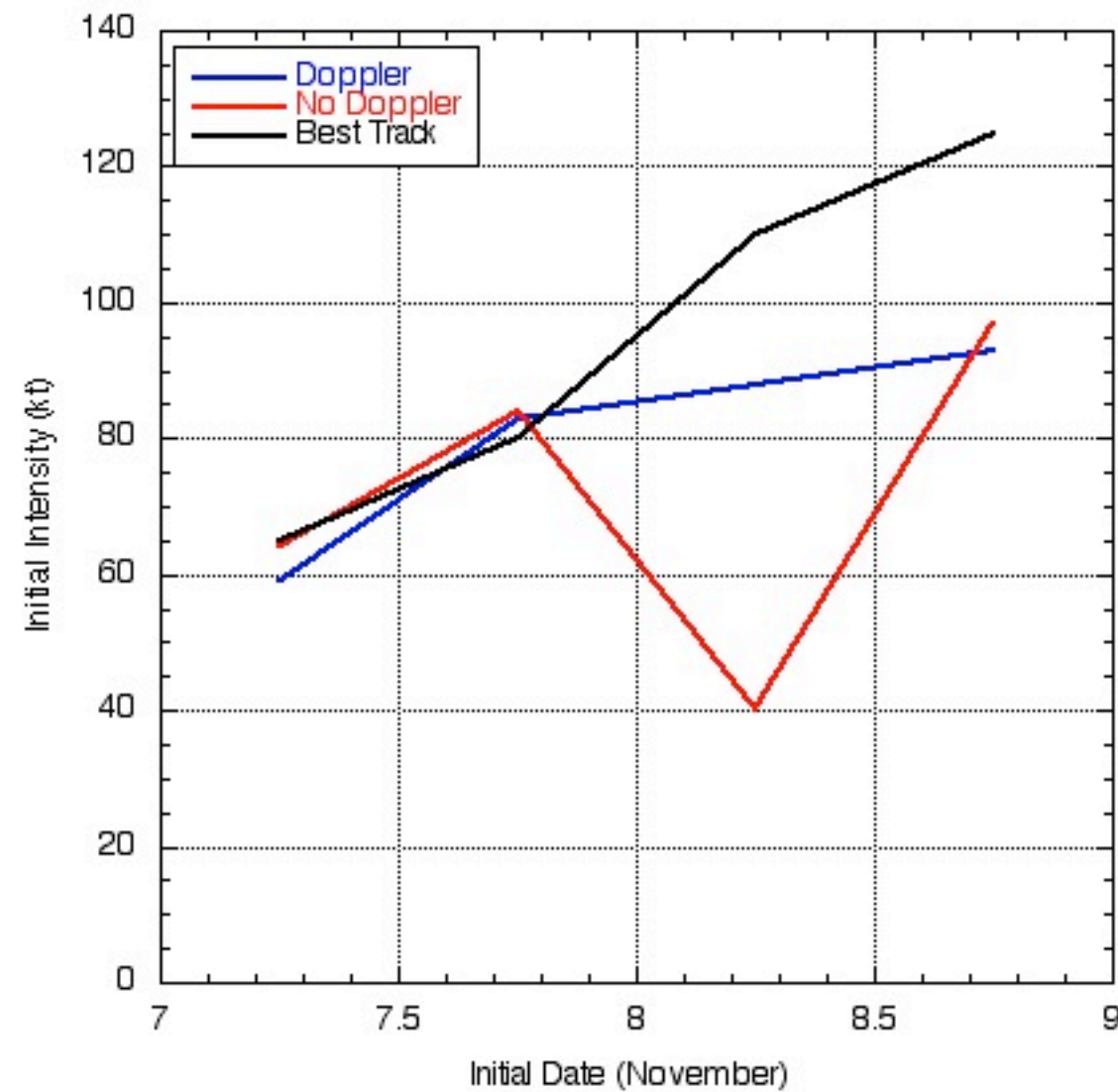
Doppler data improves initial intensity (Earl)



Doppler data has mixed impact on intensity (Tomas)



Doppler data has little impact on initial intensity (Paloma)



Summary of Progress

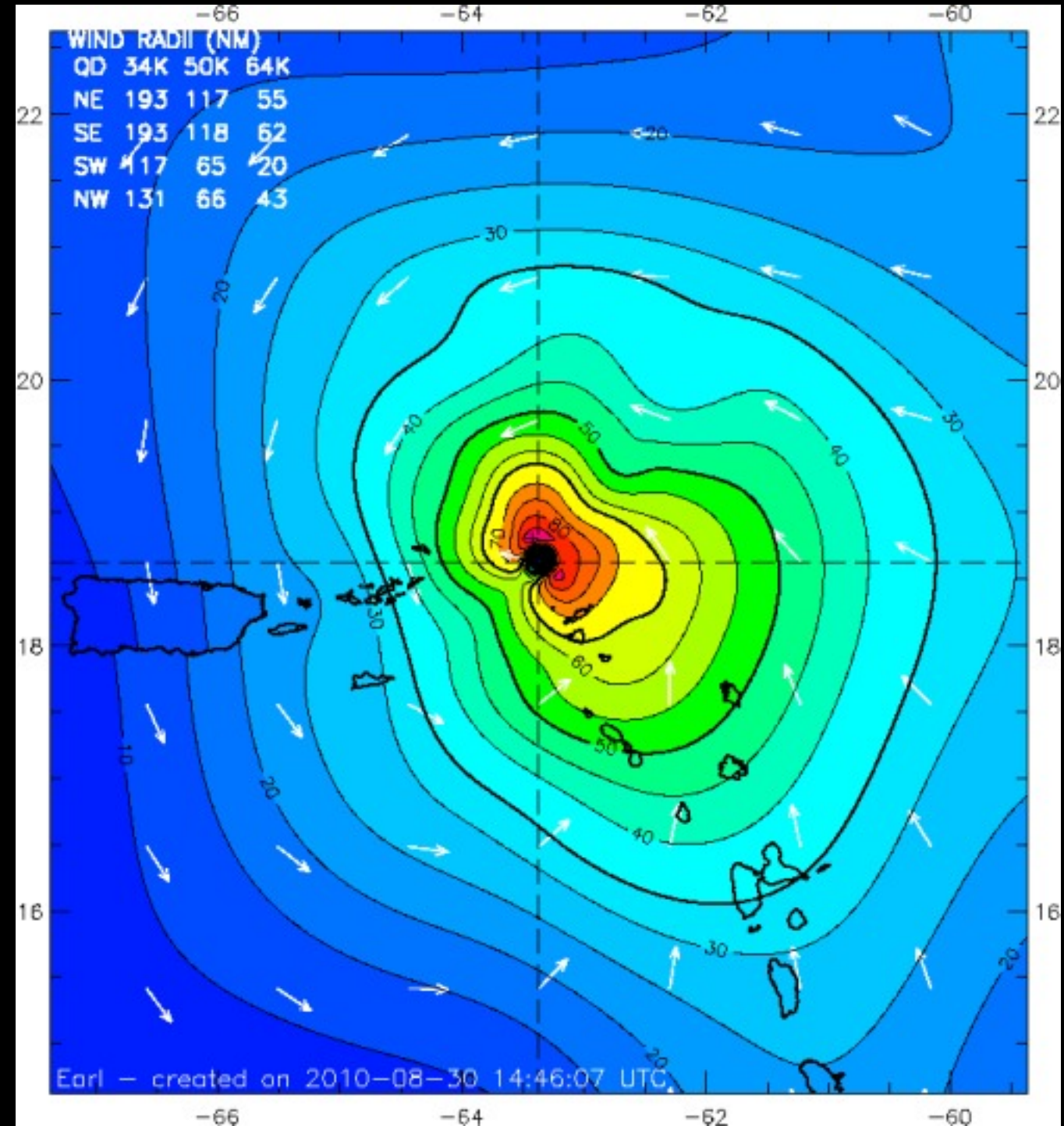
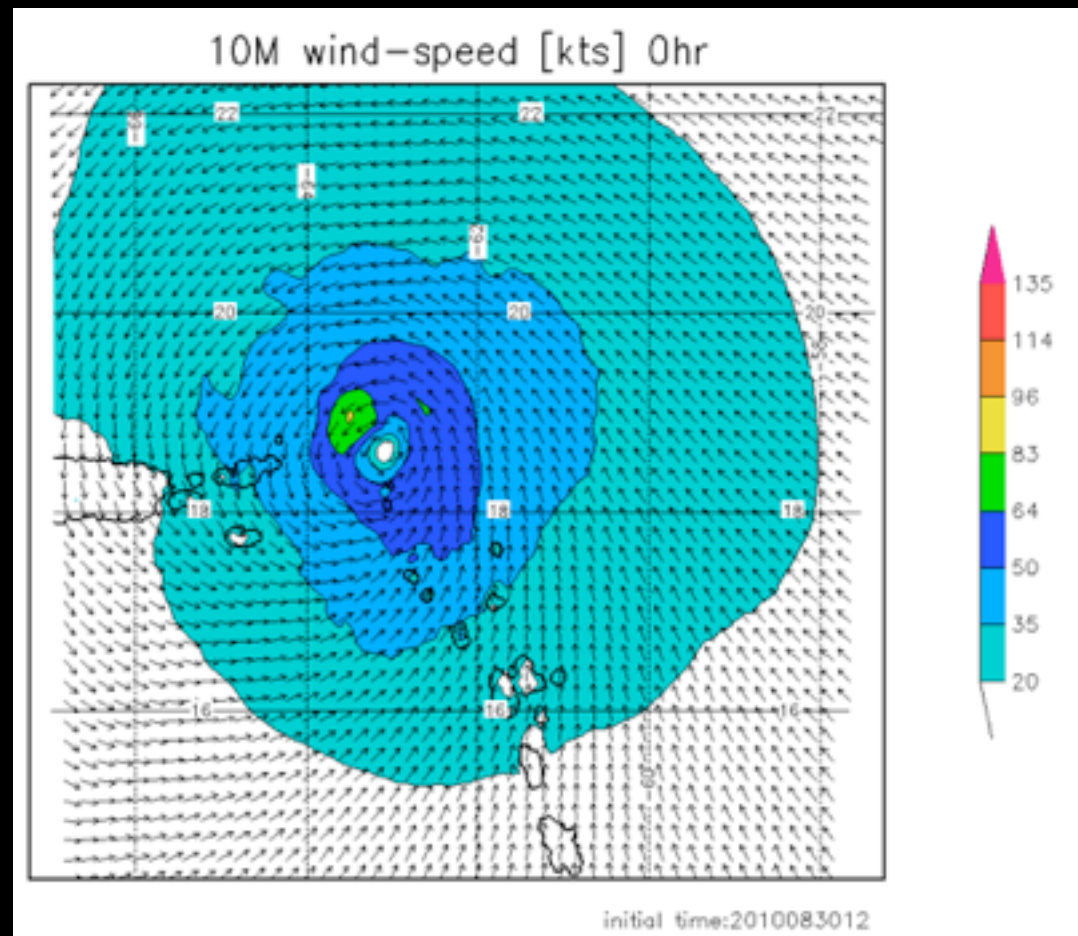
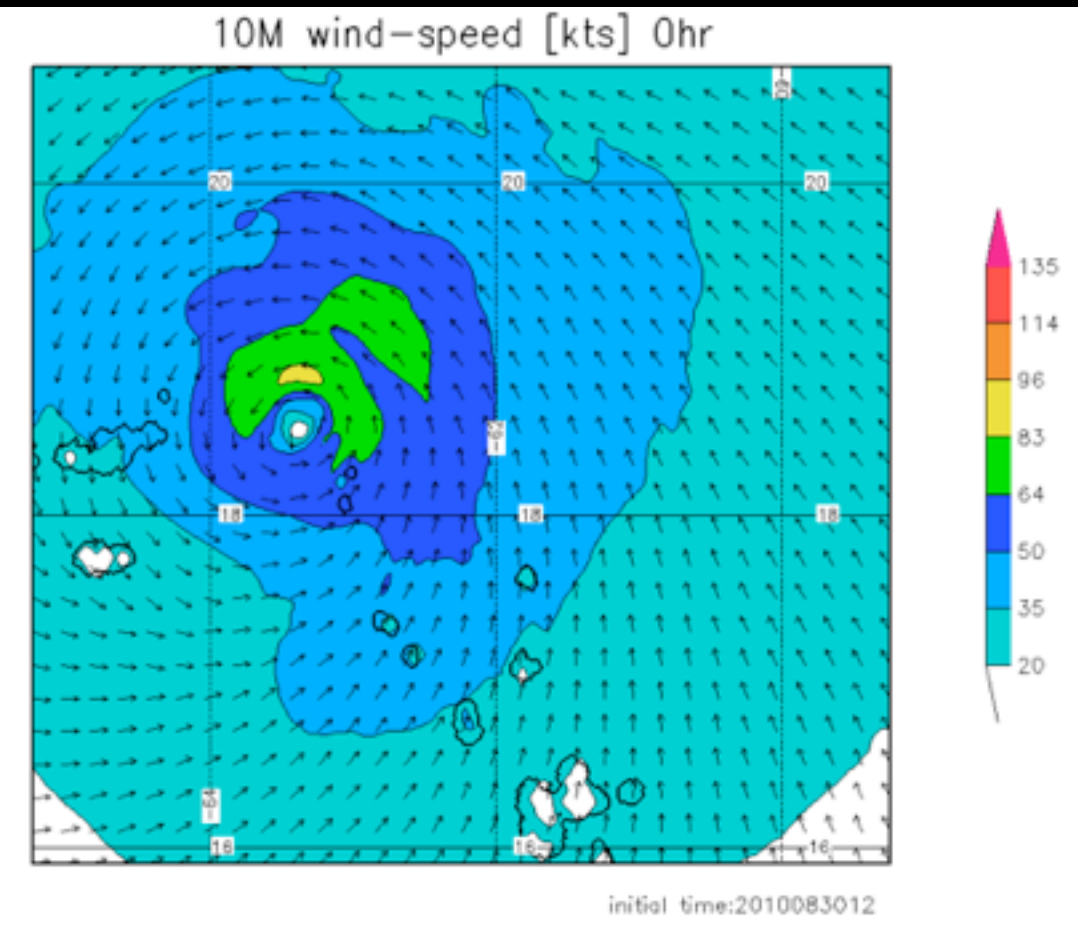
There are 74 cases total. Of those, 33 have been completed, slightly less than half. The remainder should be done as early as next week.

ESRL may rerun 2005 with the GFS-EnKF, providing more cases to test. This may increase the sample by about 50%. For us to run, we would need:

1. Dropwindsonde data reprocessed to get launch and splash times.
2. Radar superobs for the cases.
3. HWRF runs for initial conditions on d01.

Doppler

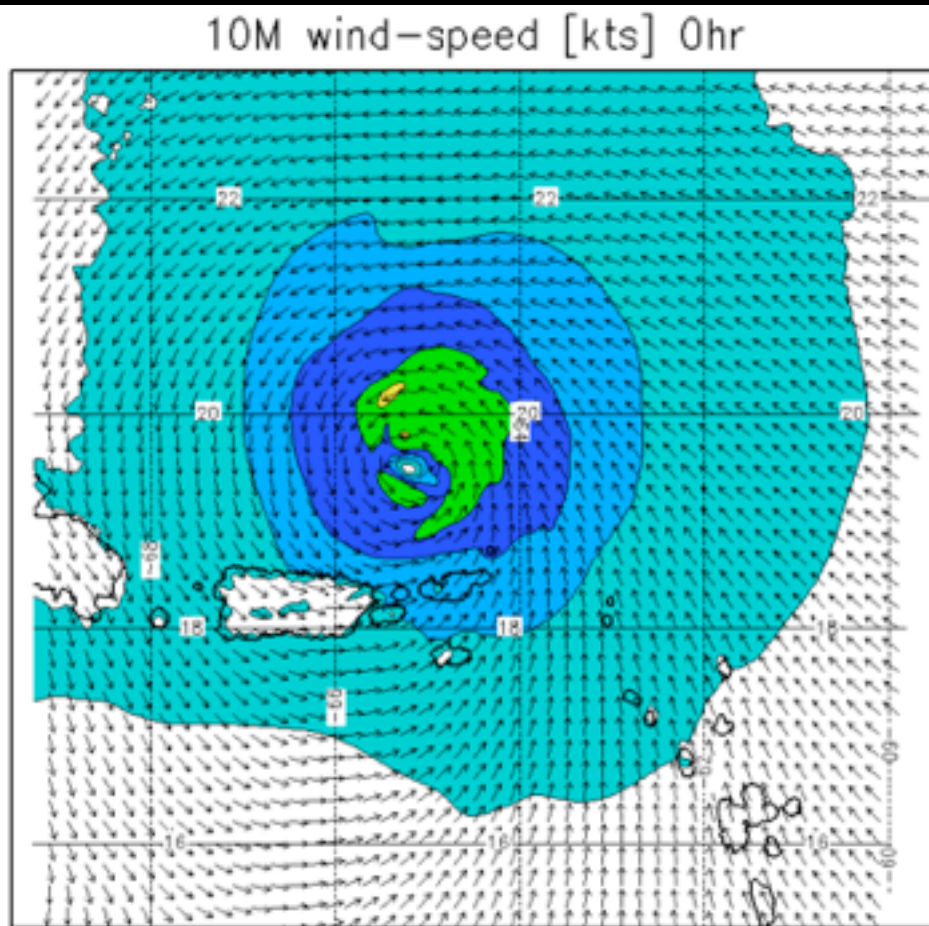
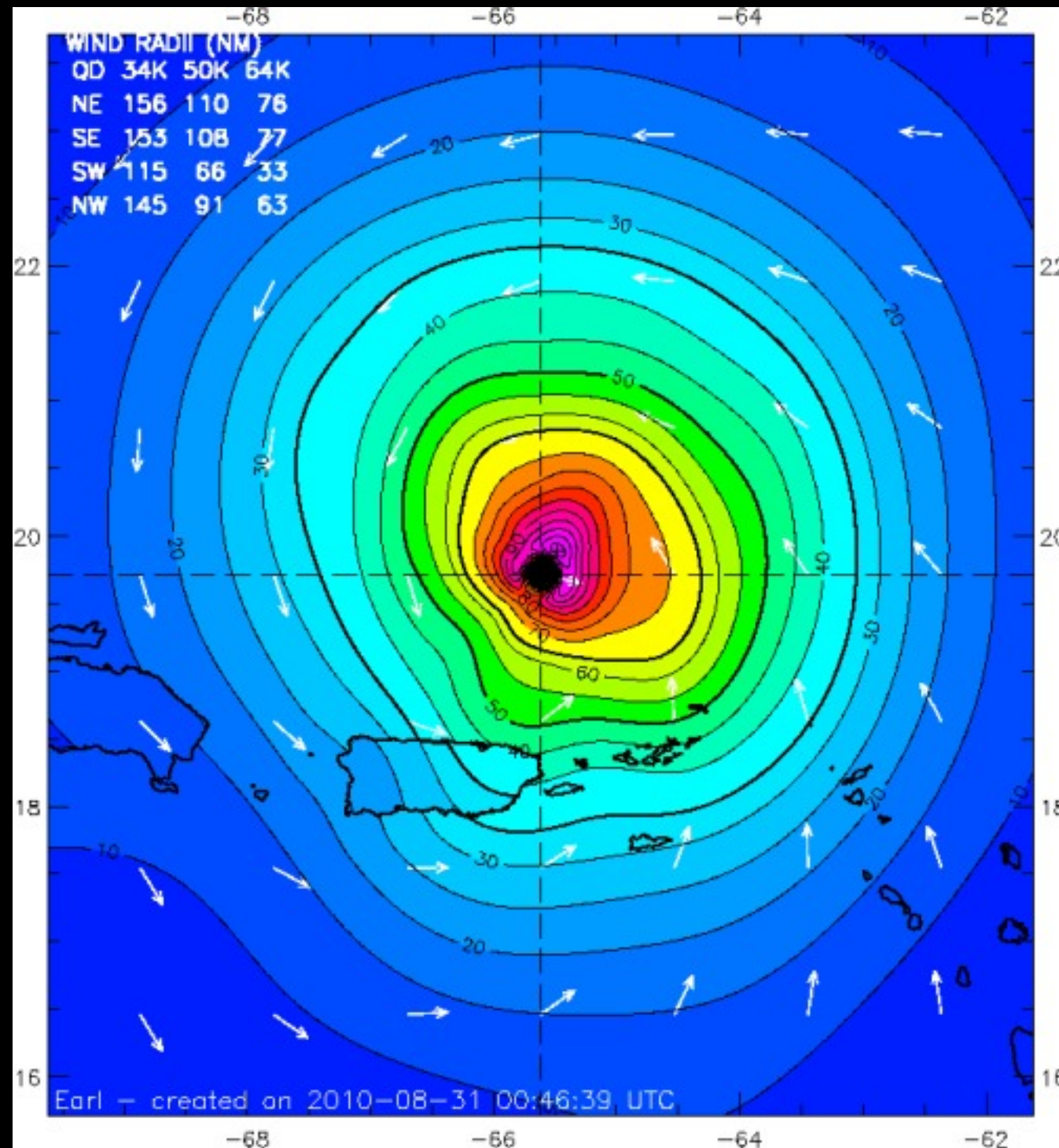
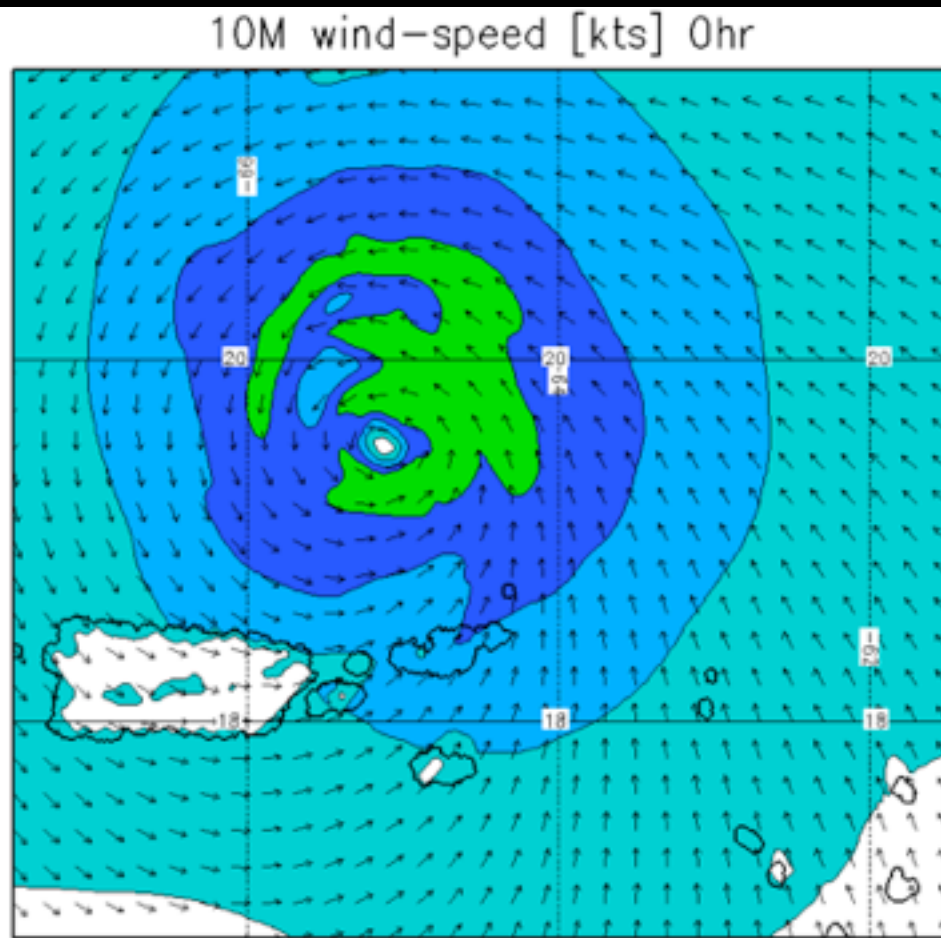
H*Wind



No Doppler

Doppler

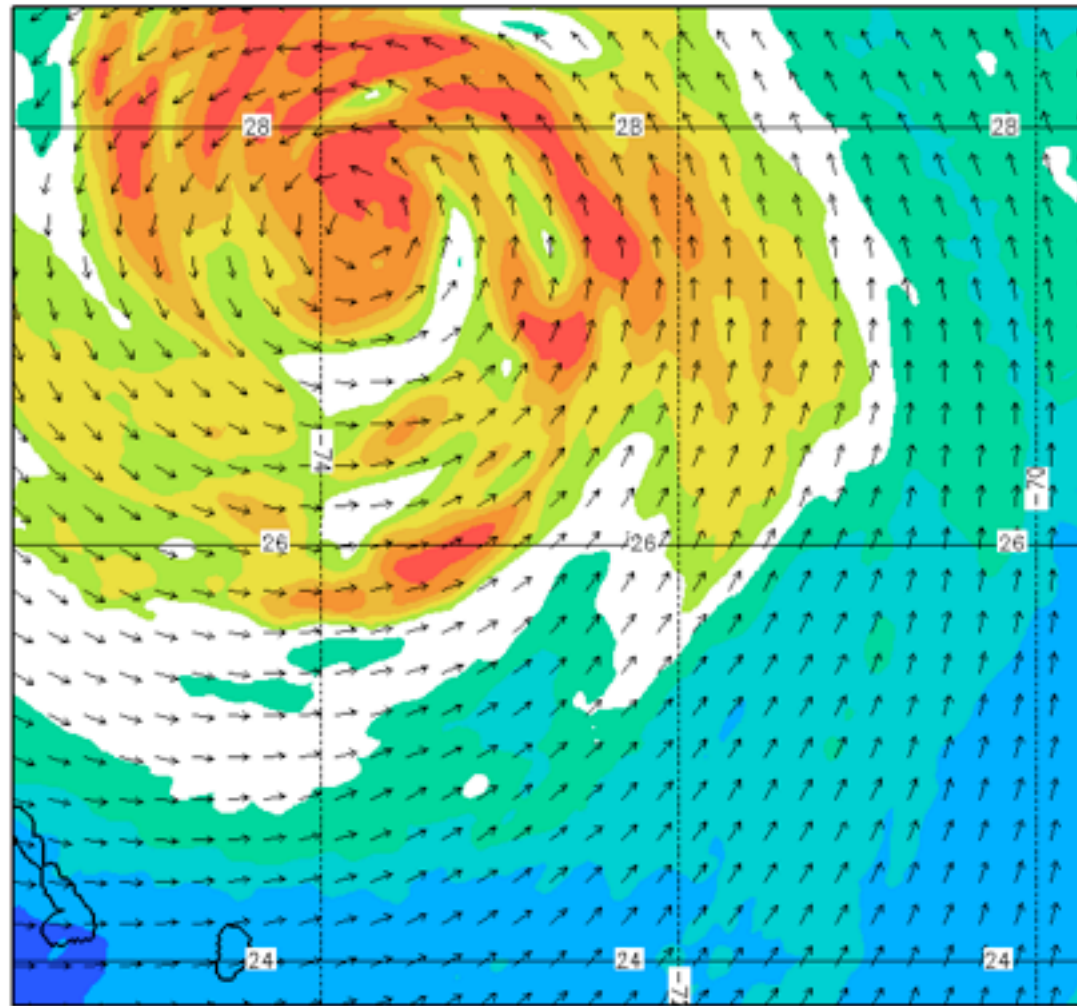
H*Wind



No Doppler

Doppler

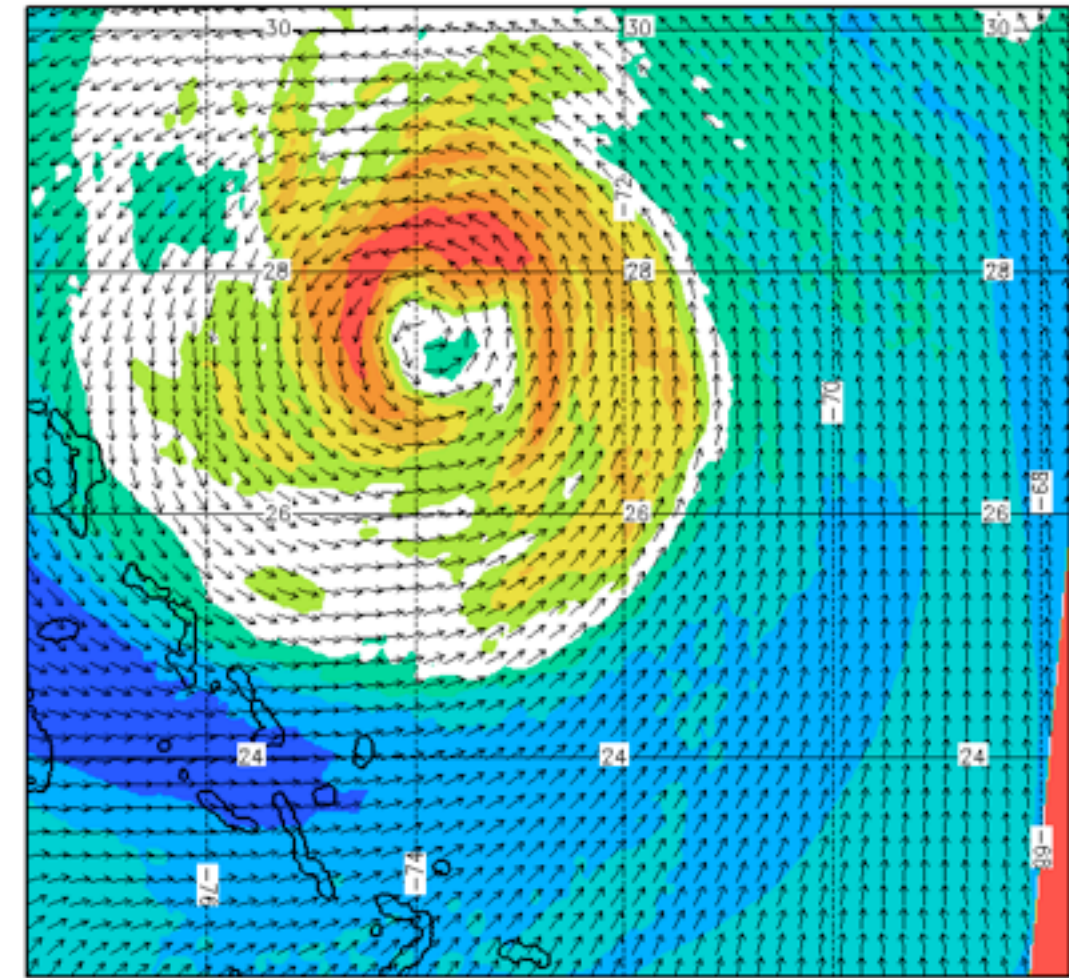
700mb rel humidity [%] for 0hr



initial time:2010090200

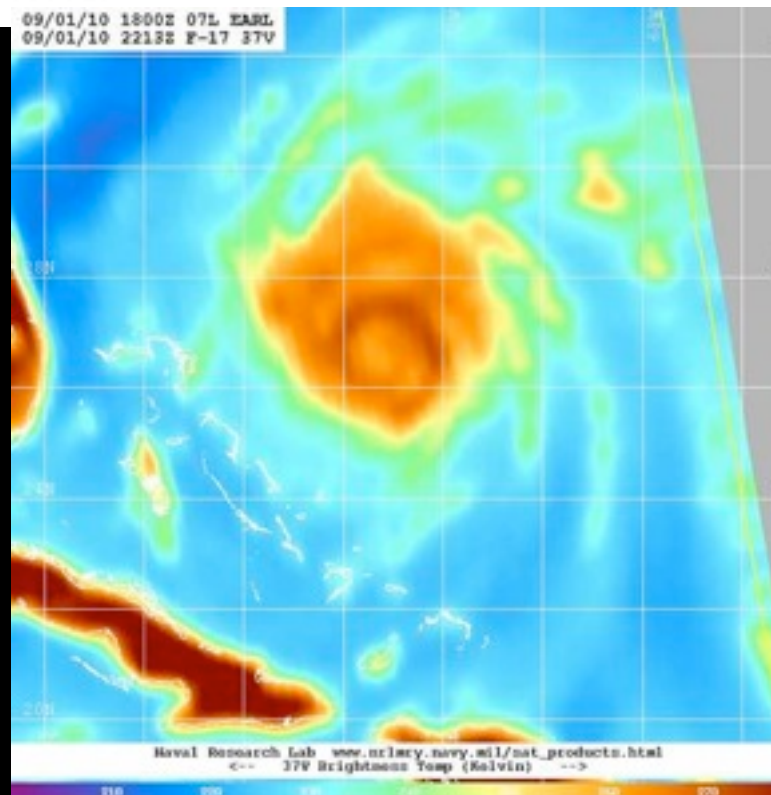
No Doppler

700mb rel humidity [%] for 0hr

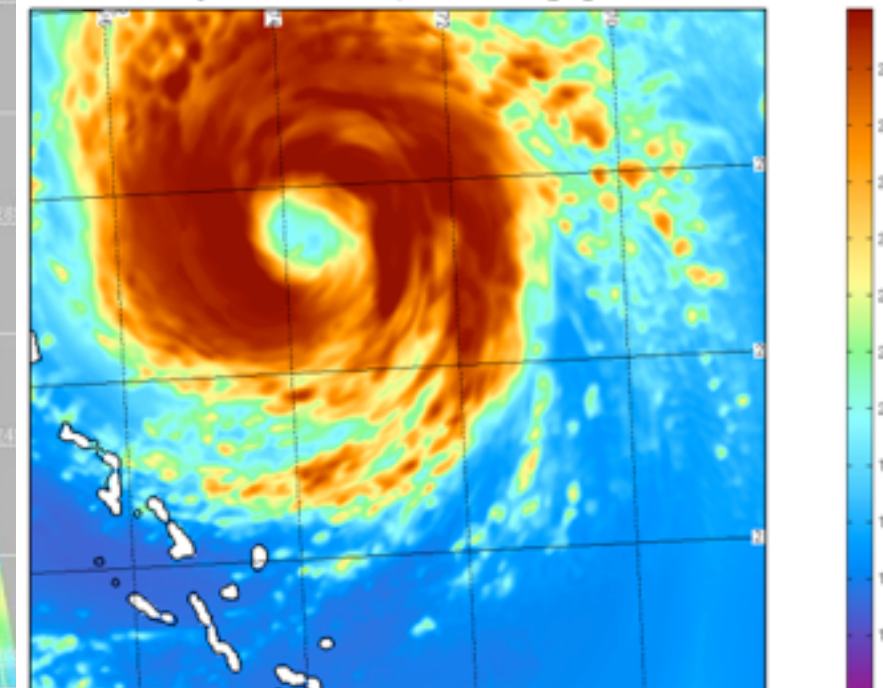


initial time:2010090200

Note the impact of
the Doppler winds
on humidity!



37H Brightness Temperature [K] for 0hr

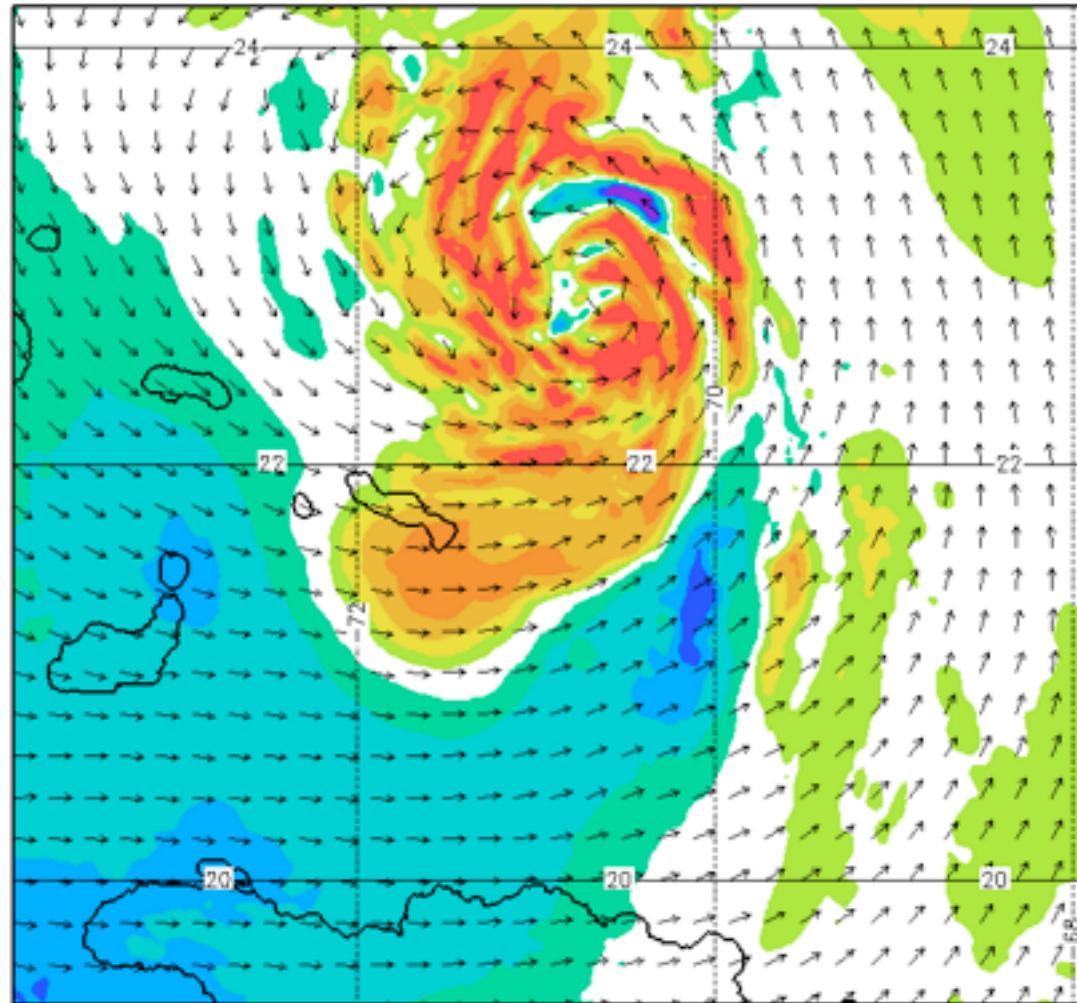


initial time:2010090200

Doppler

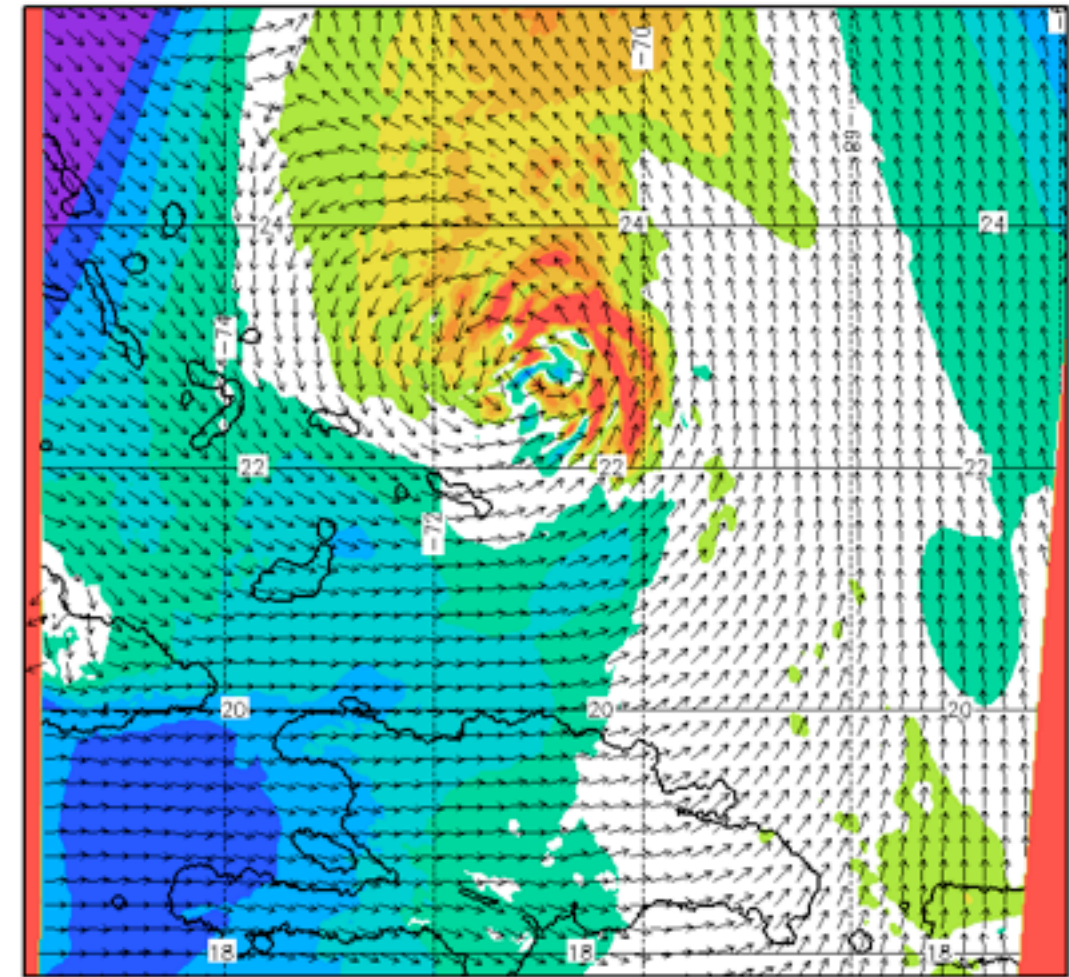
No Doppler

700mb rel humidity [%] for 0hr



initial time:2010110612

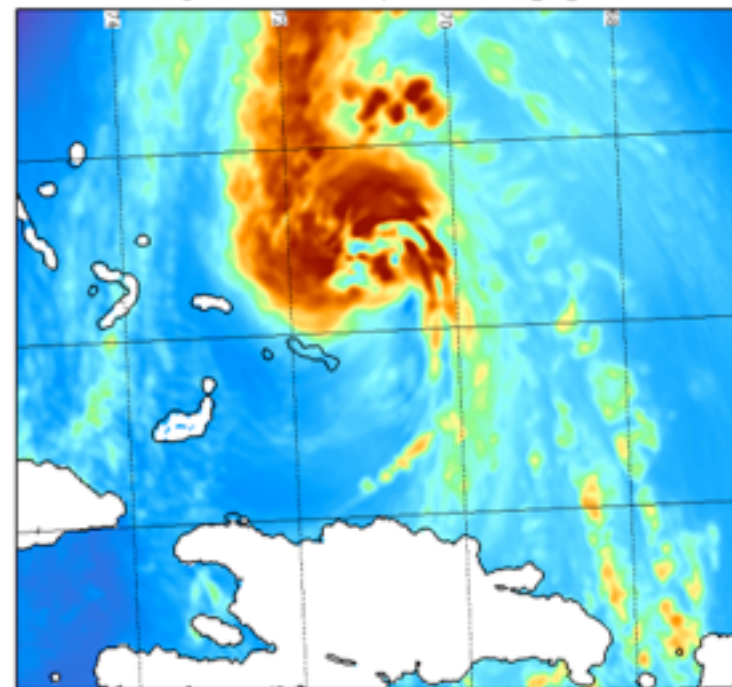
700mb rel humidity [%] for 0hr



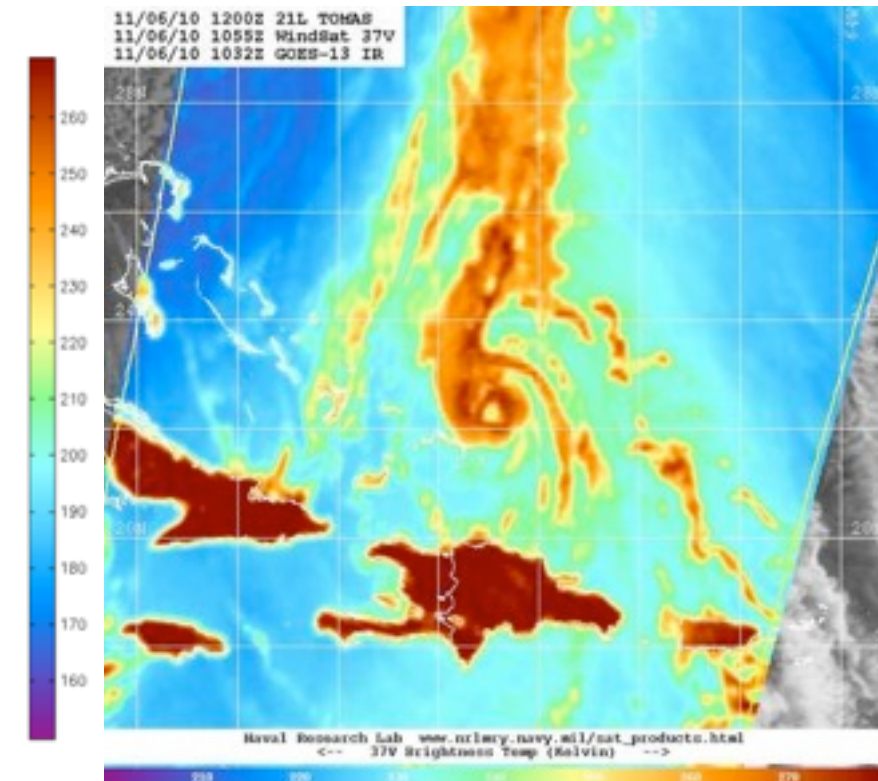
initial time:2010110612

Note the
impact of the
Doppler
winds on
humidity!

37H Brightness Temperature [K] for 0hr



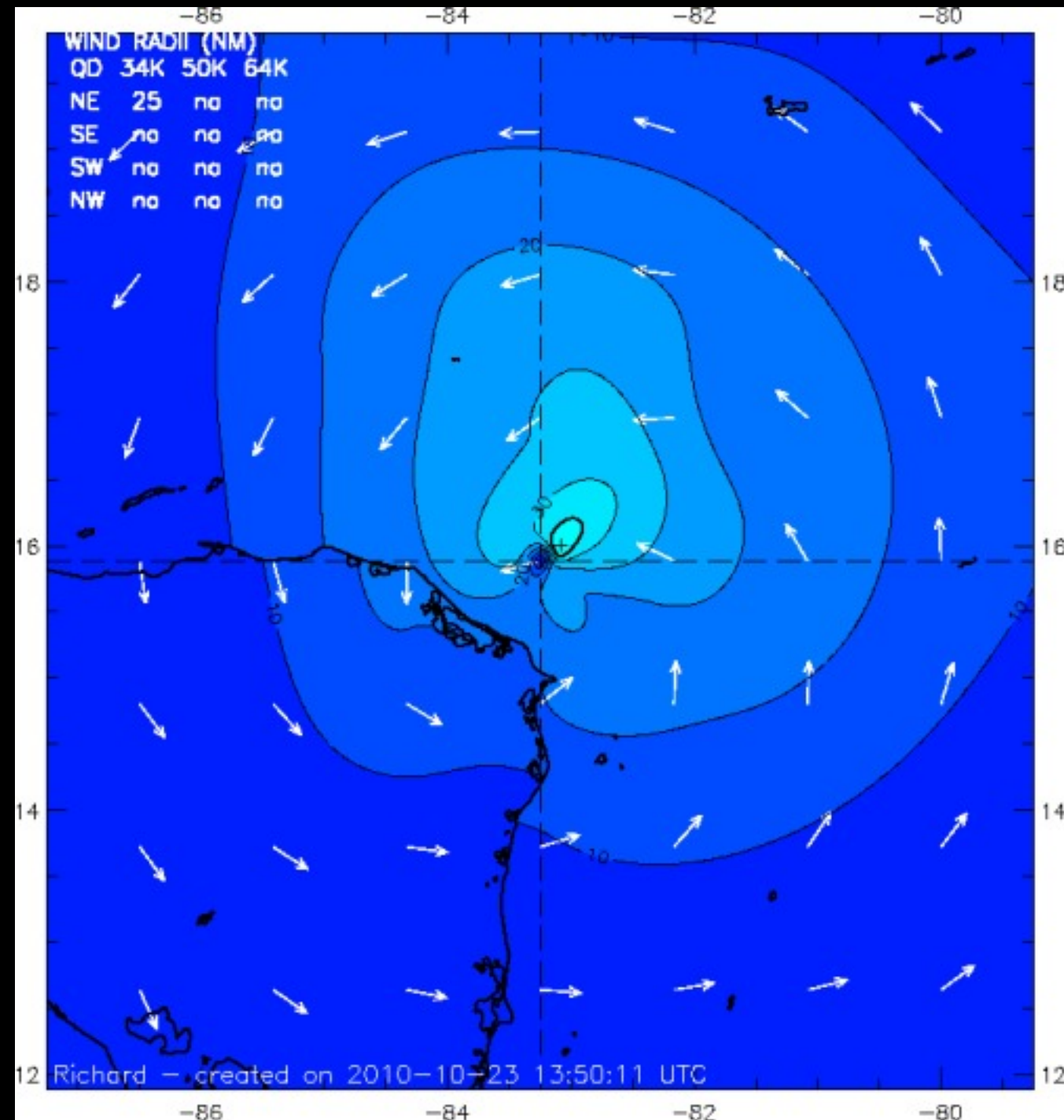
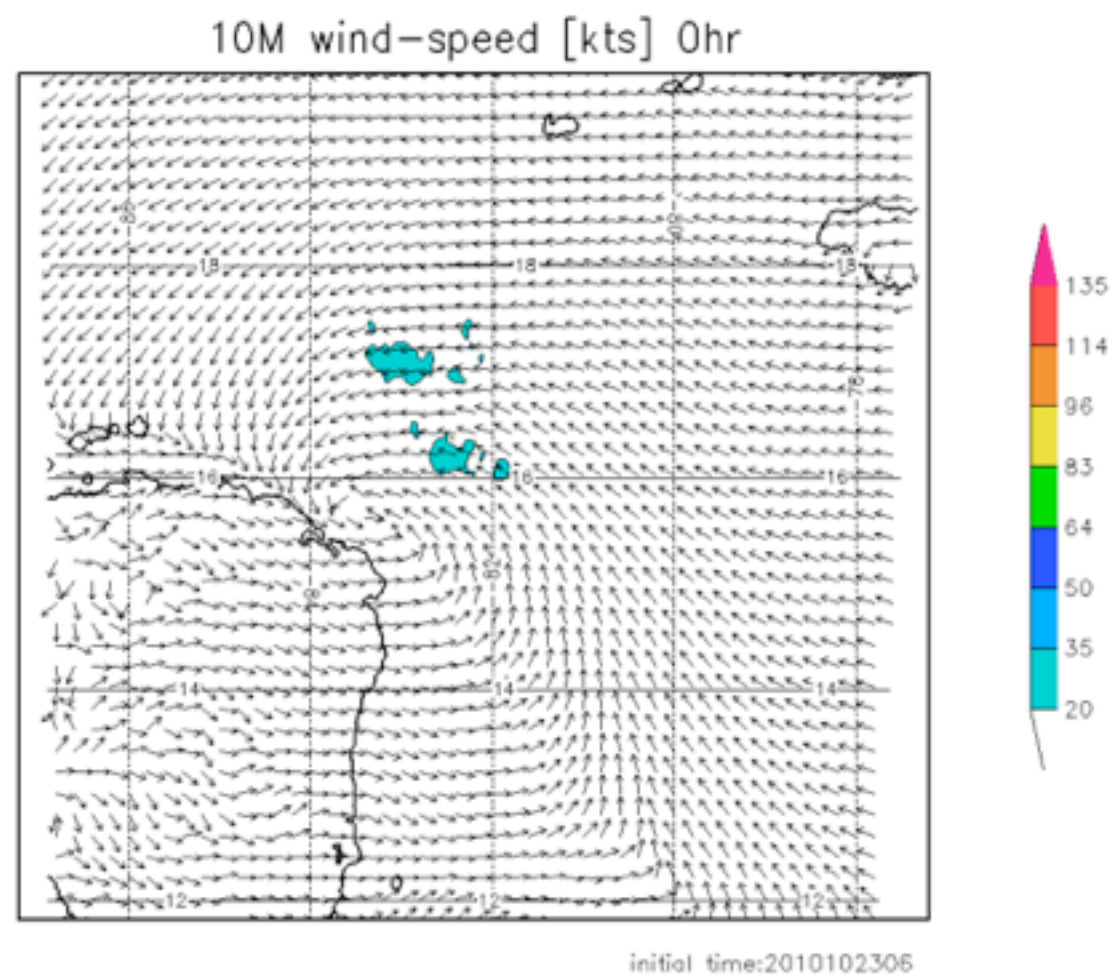
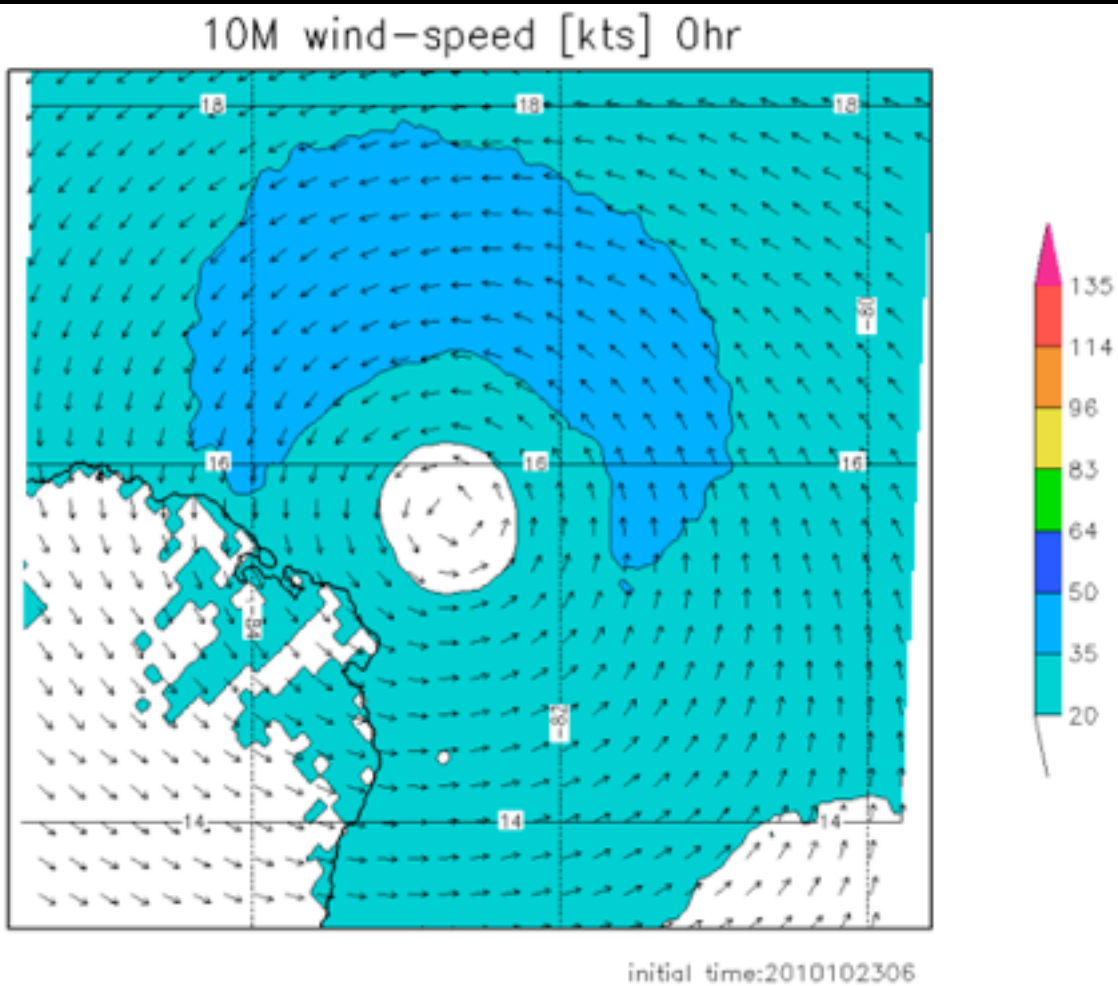
Initial time:2010110612



Naval Research Lab www.nrlmry.navy.mil/sat_products.html
11/06/10 1200Z 21L TOMAS
11/06/10 1055Z WindSat 37V
11/06/10 1032Z GOES-13 IR
37V Brightness Temp (Kelvin)

Doppler

H*Wind



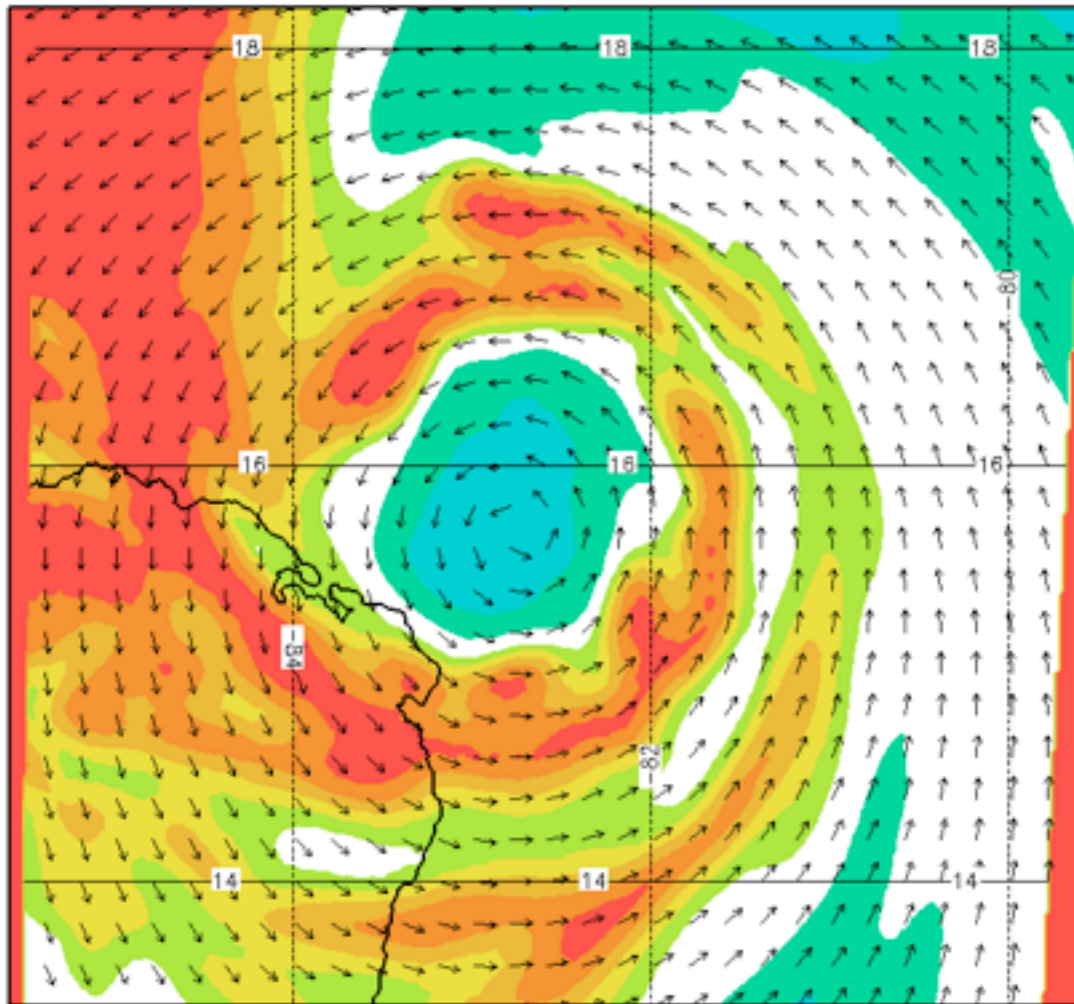
The plane did not get close to the center due to land.

No Doppler

Doppler

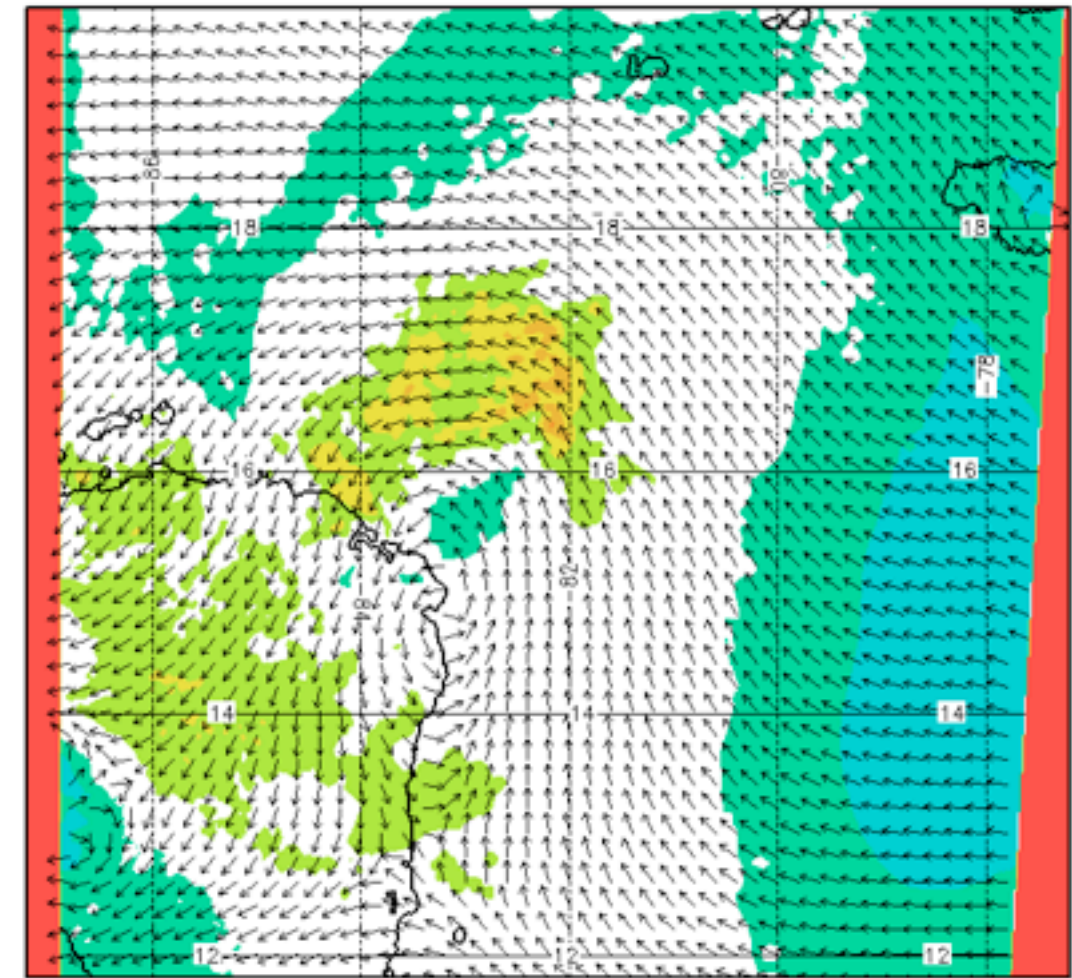
No Doppler

700mb rel humidity [%] for 0hr



initial time:2010102306

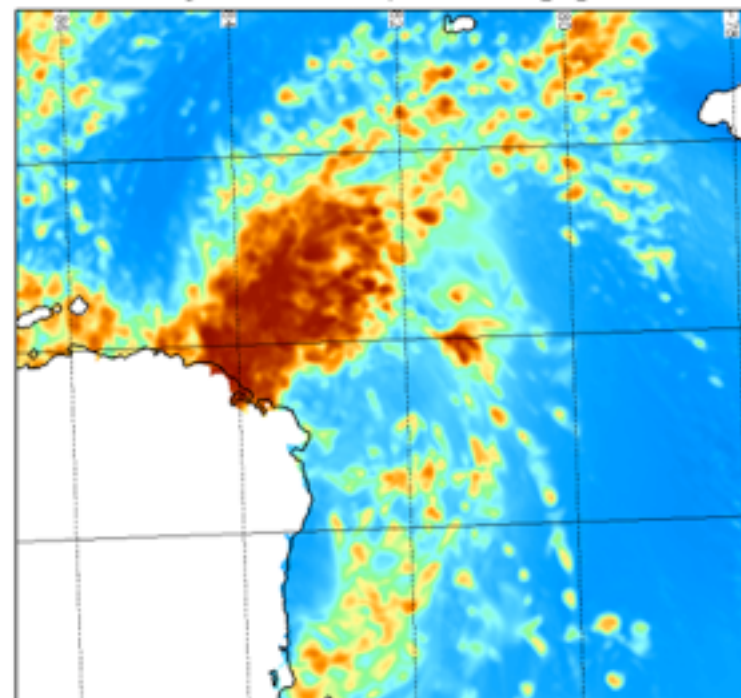
700mb rel humidity [%] for 0hr



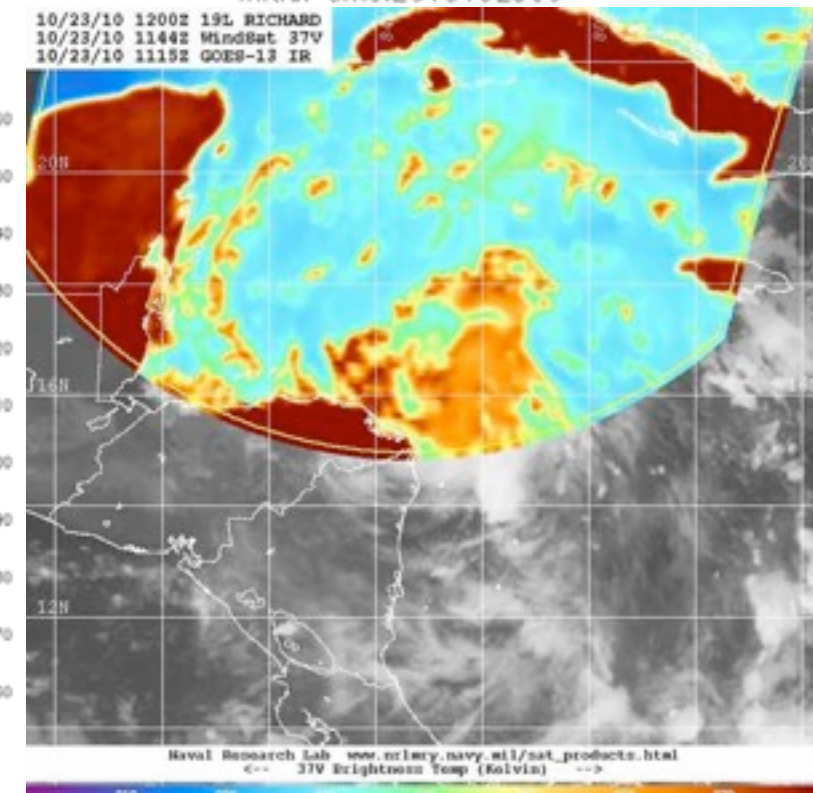
initial time:2010102306

The plane
did not get
close to the
center due
to land.

37H Brightness Temperature [K] for 0hr

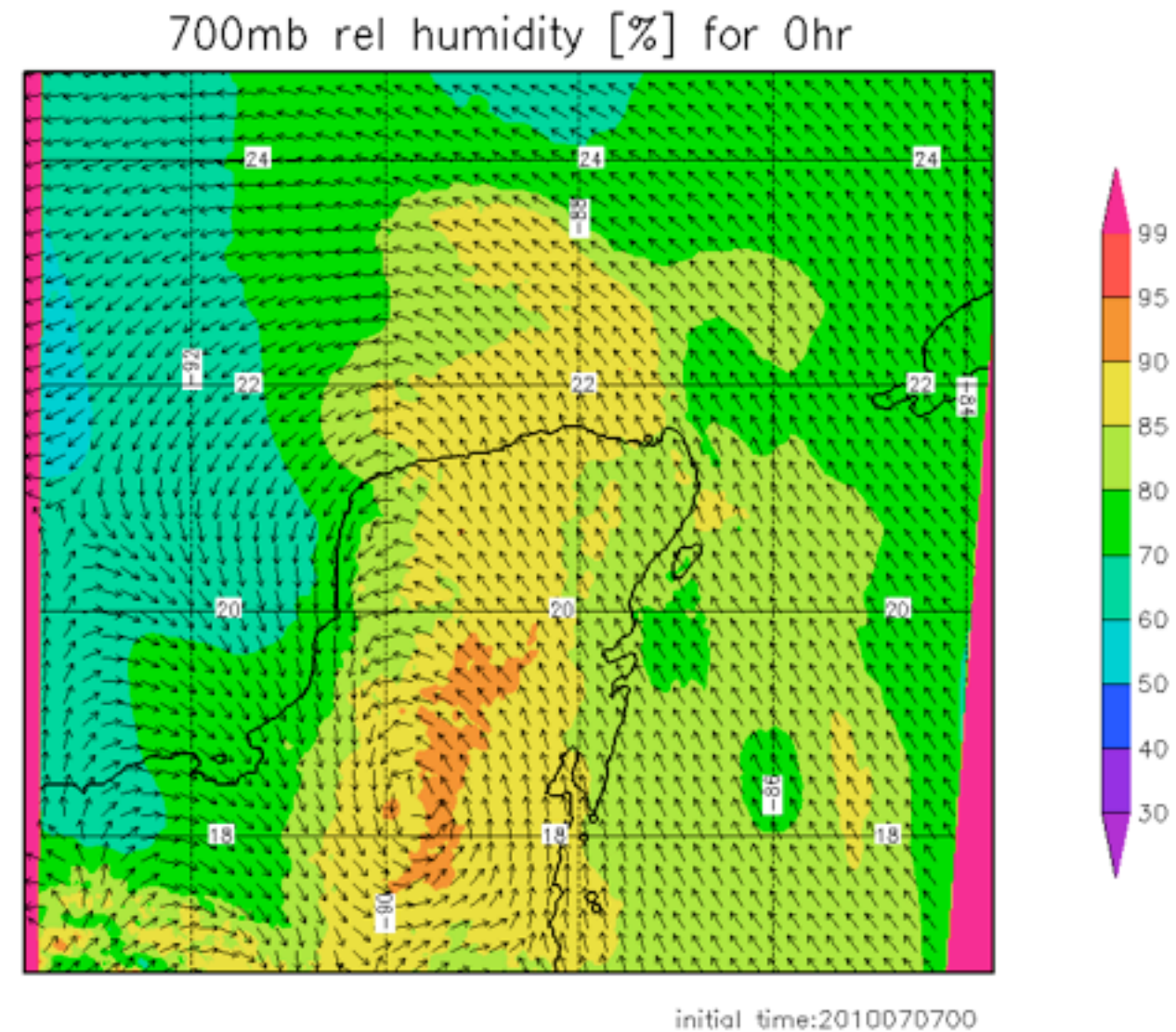
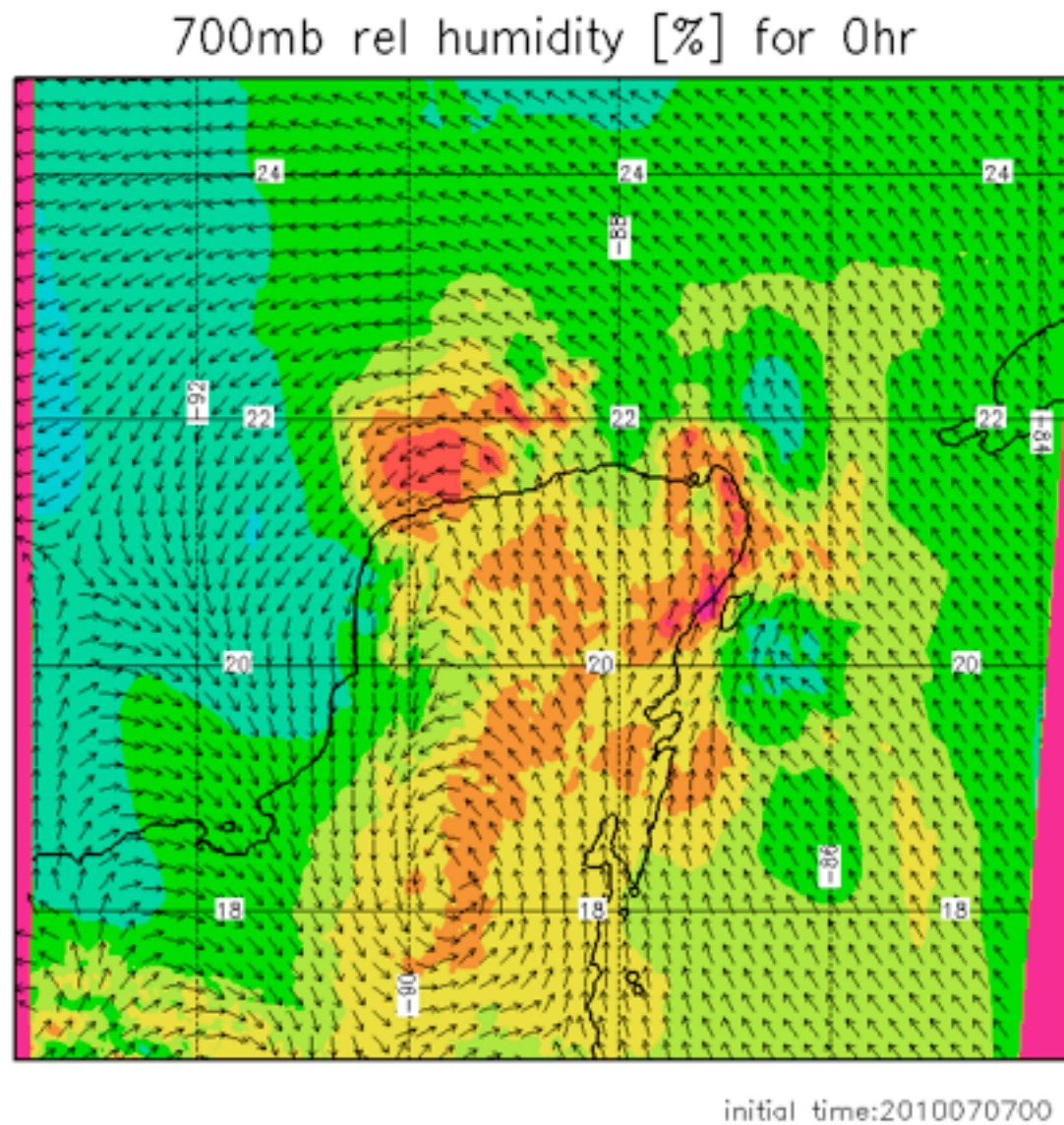


initial time:2010102306



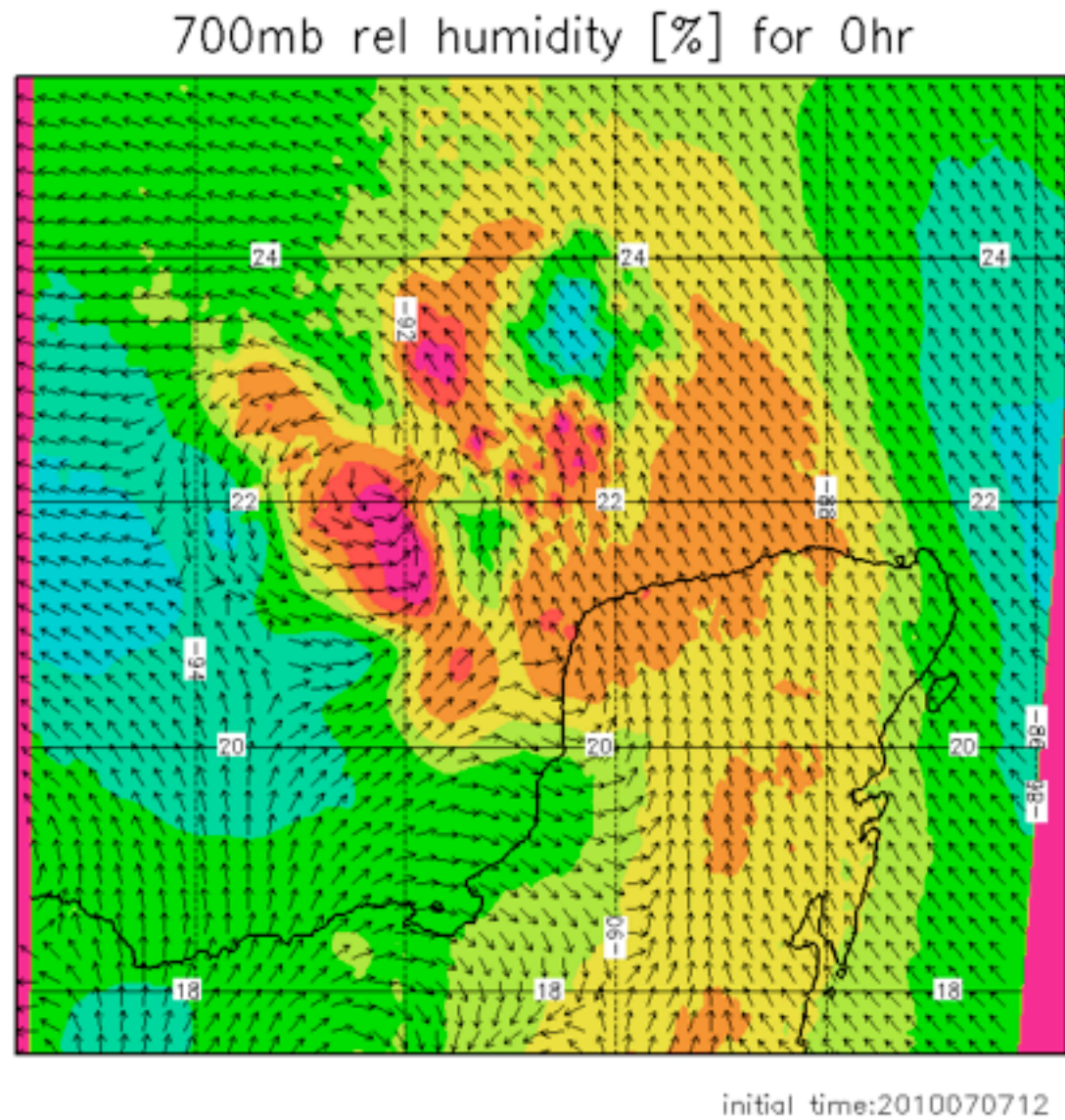
Doppler

No Doppler

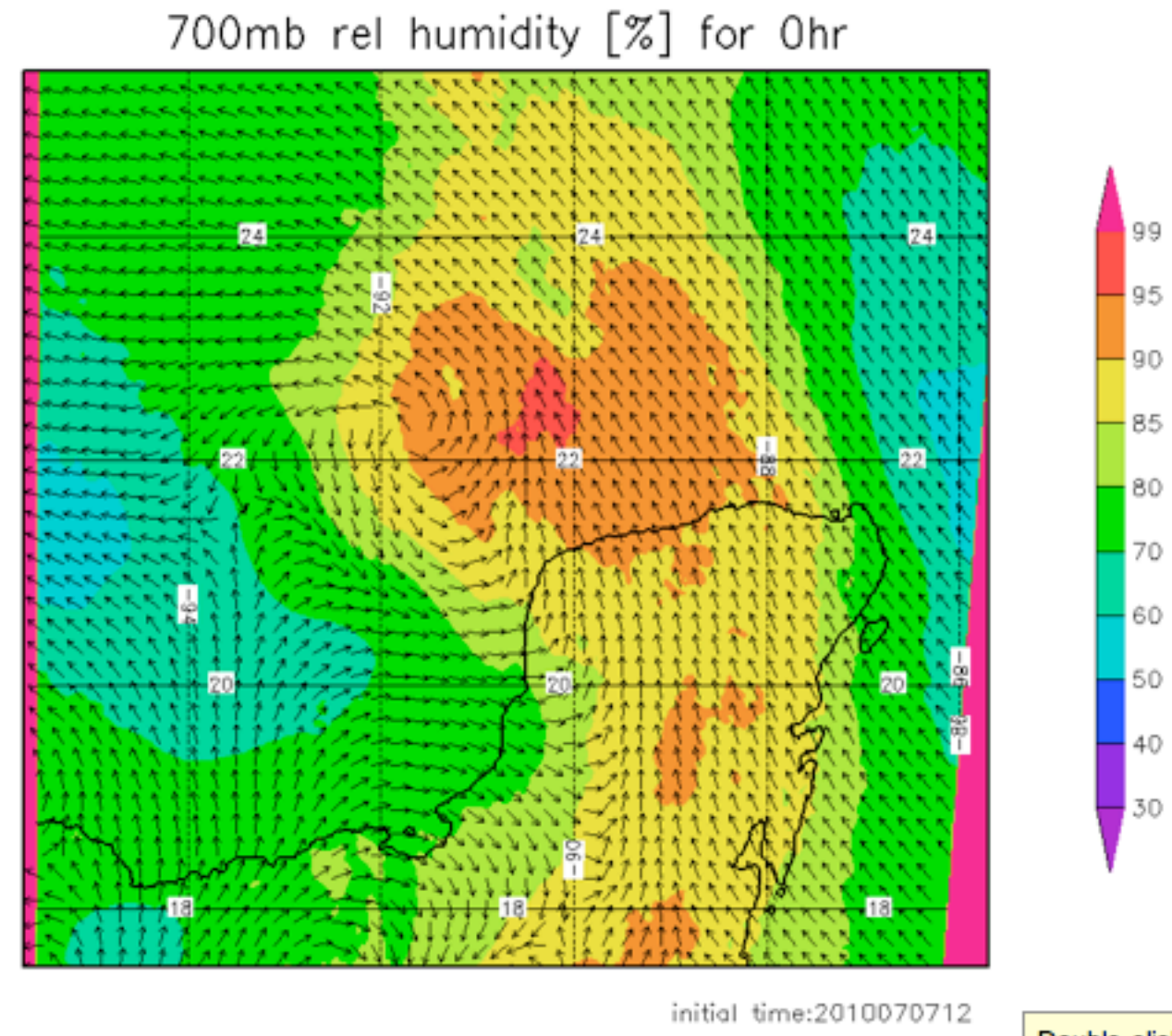


Note the impact of the Doppler winds on humidity!

Doppler

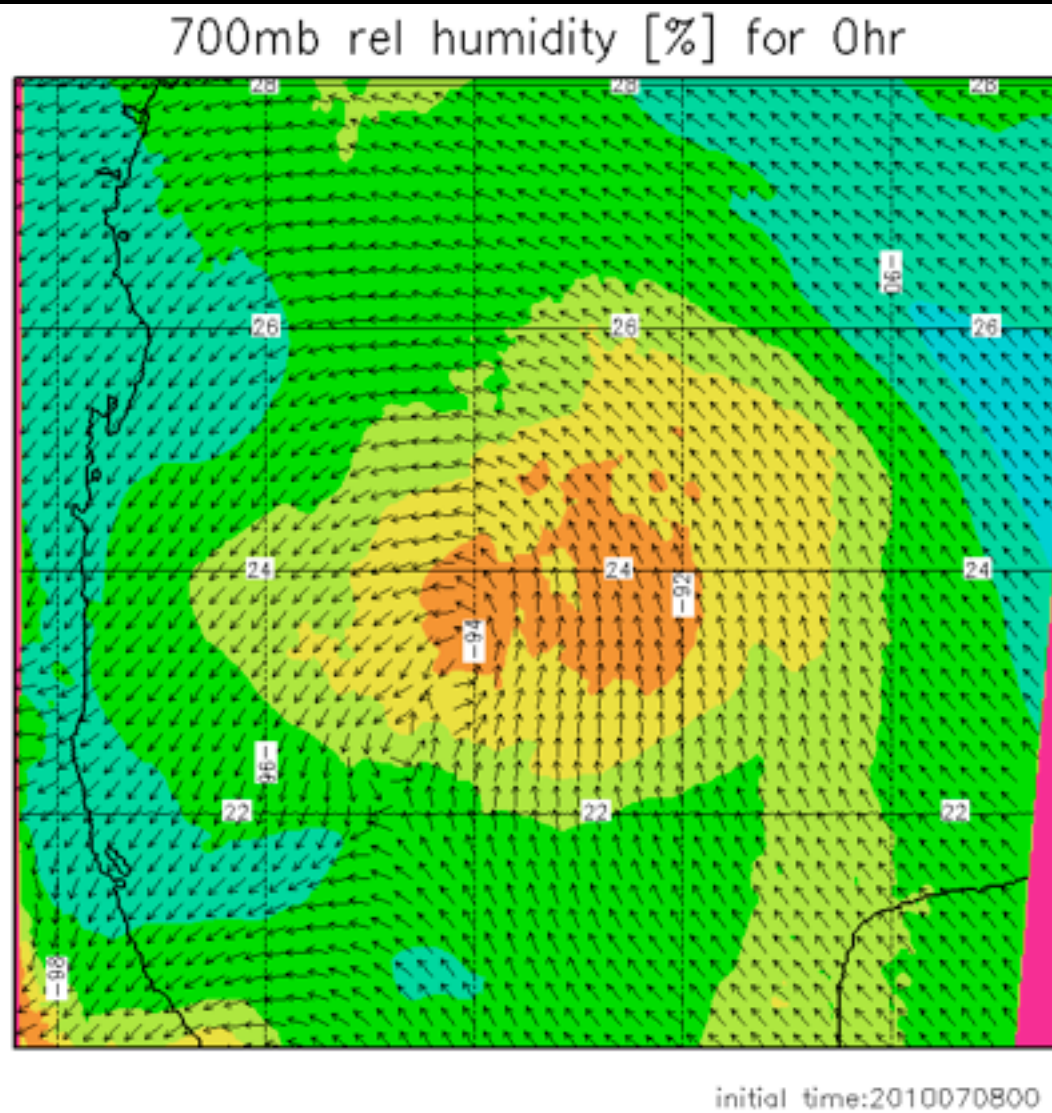


No Doppler

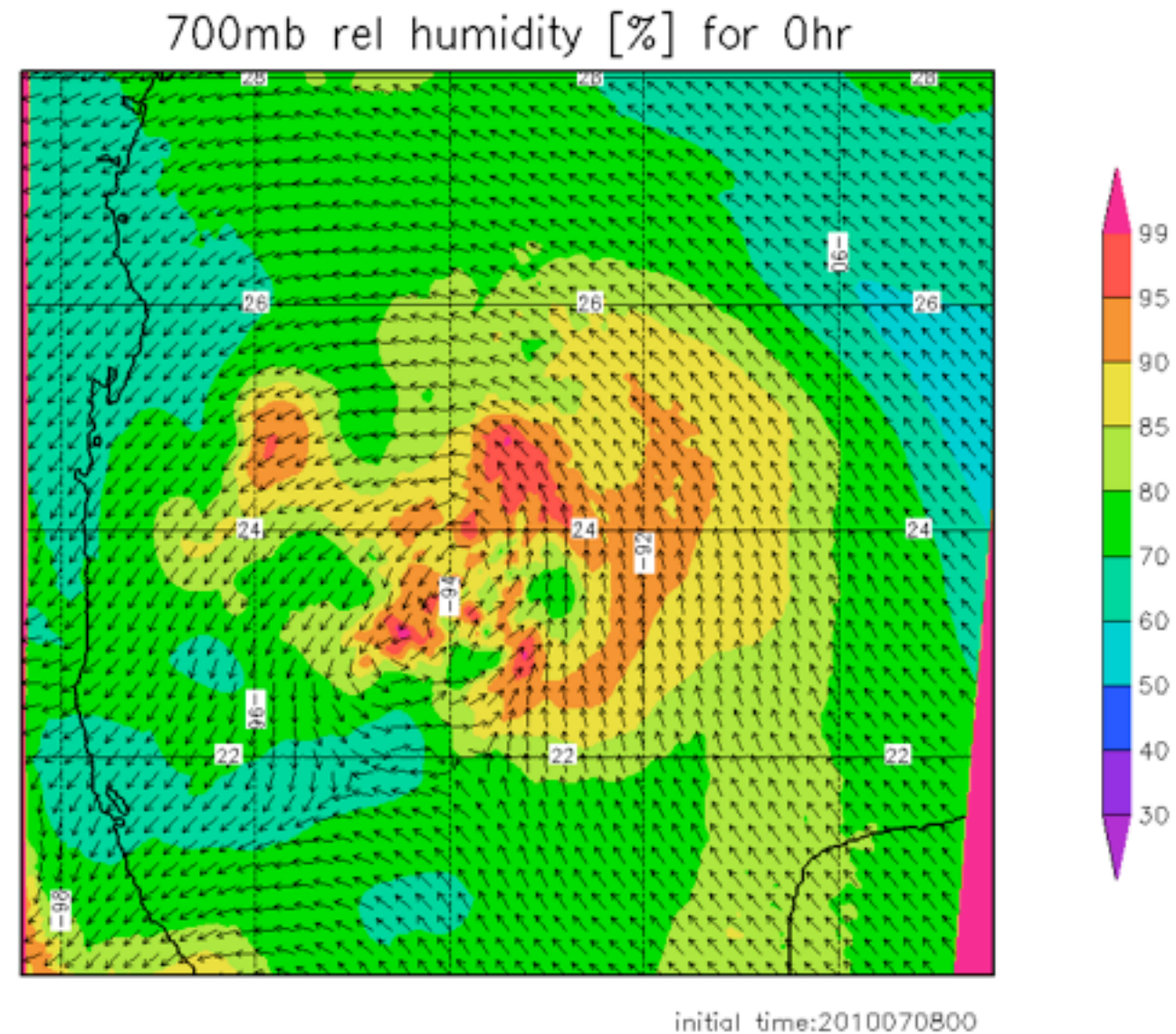


Note the impact of the Doppler winds on humidity!

Doppler



No Doppler



Note the impact of the Doppler winds on humidity!