

Two days along the polar front

ATM 210 -- Fall 2023 -- Fovell

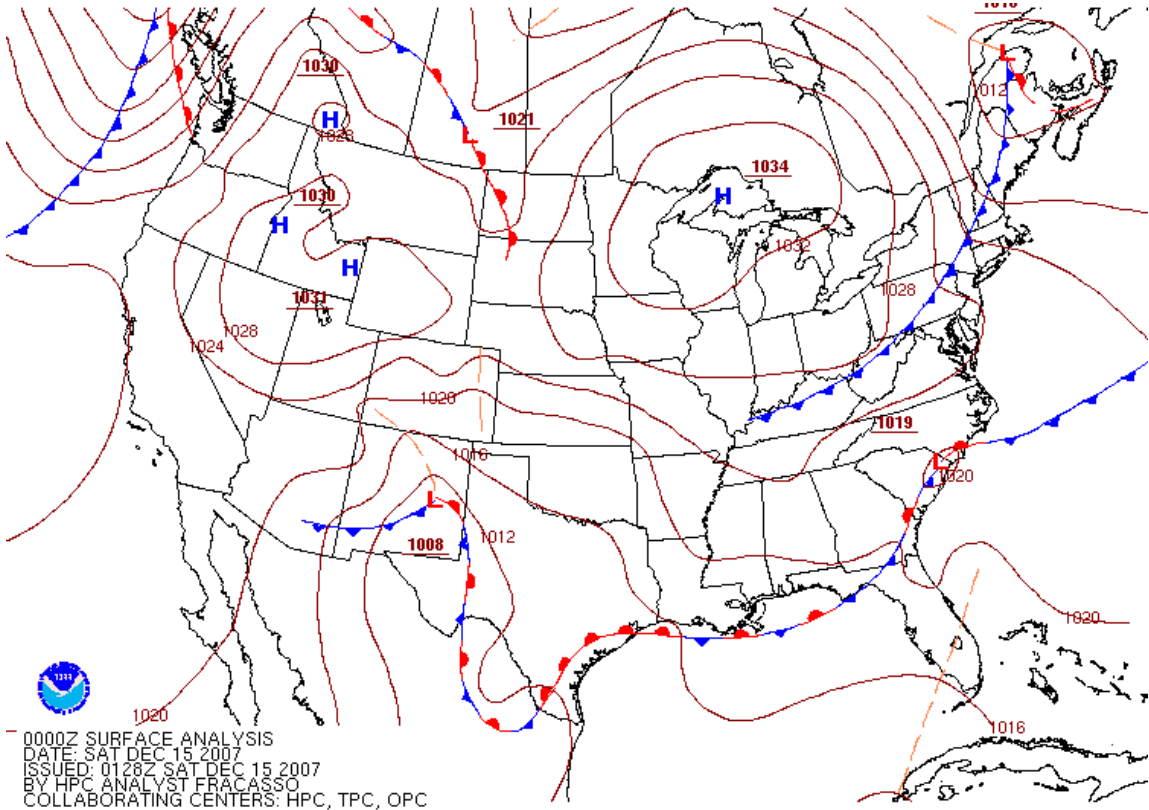
Surface charts as analyzed/produced/disseminated by National Weather Service
<https://www.wpc.ncep.noaa.gov>

00Z 15 December 2007

High pressure over most of CONUS

1008 mb low in NM, 1012 mb L in New Brunswick

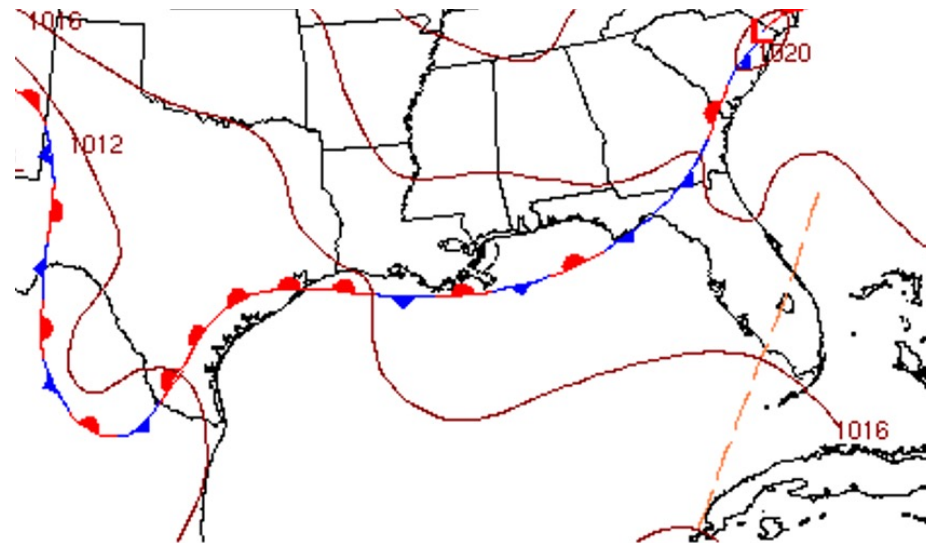
Zoom in on TX/Gulf



00Z = 00 UTC = 00 GMT = 7 PM EST 14 December

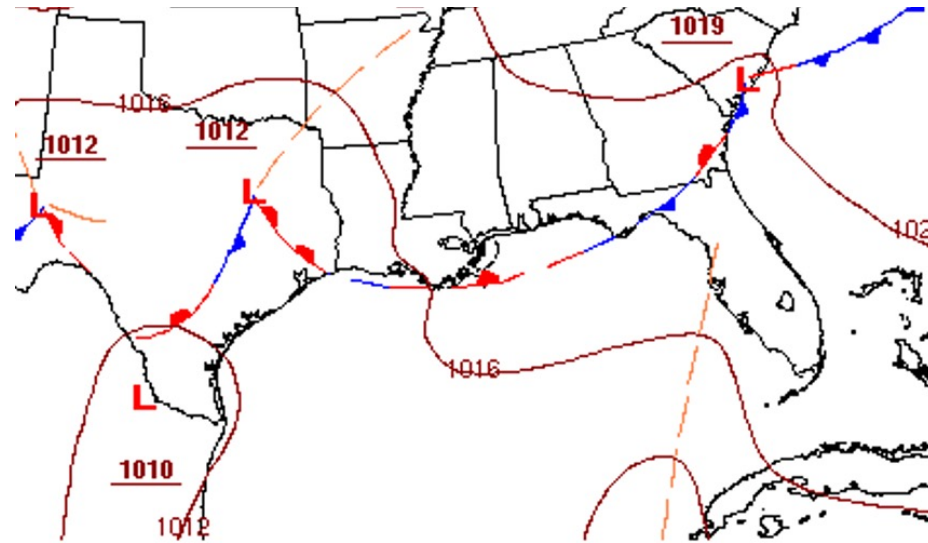
00Z 15 December 2007

Stationary front along
Gulf coast. Lowest SLP
about 1012 mb



06Z 15 December 2007

6 h later, a low center has formed in E TX. Still 1012 mb. Stationary front reshaped into cold and warm fronts

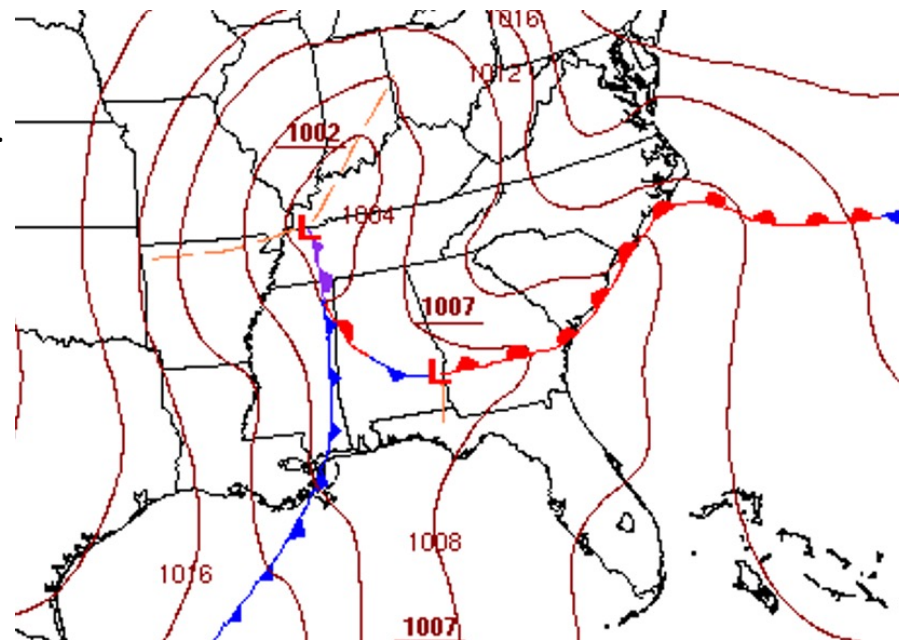


00Z 16 December 2007

18 h later, low has moved NE.
Now 1002 mb and has
already occluded

A new 1007 mb low is
analyzed along the front on
MS/GA border

Kinks are appearing along
warm front off NC



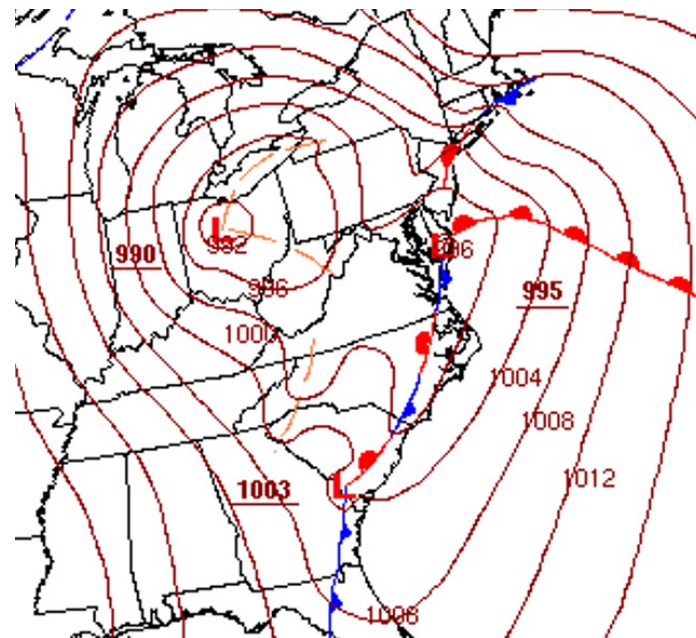
12Z 16 December 2007

Original low deepens to 990 mb but is left to die in OH, far from front

GA low deepens to 1003

Coastal low deepens more quickly, to 995 mb

All along the same air mass boundary

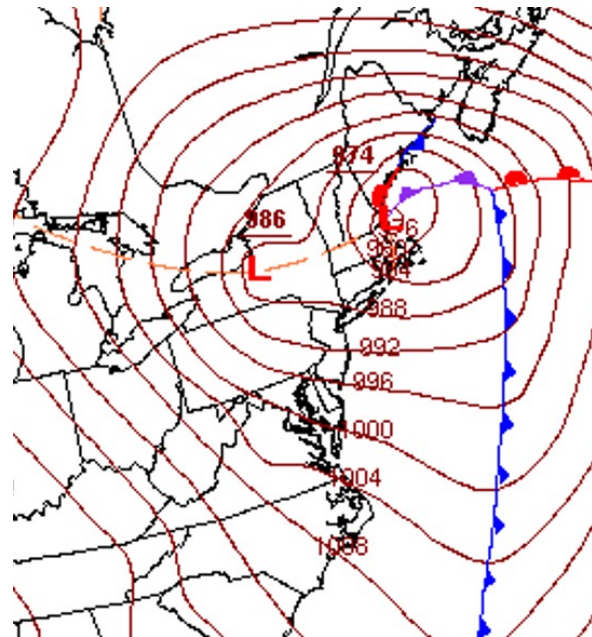


00Z 17 December 2007

Coastal low deepens to 974 mb but is already occluded

Other cyclones dead or dying

The air mass boundaries will move on, spawning more short-lived cyclones



Bjerknes' original life cycle figure

