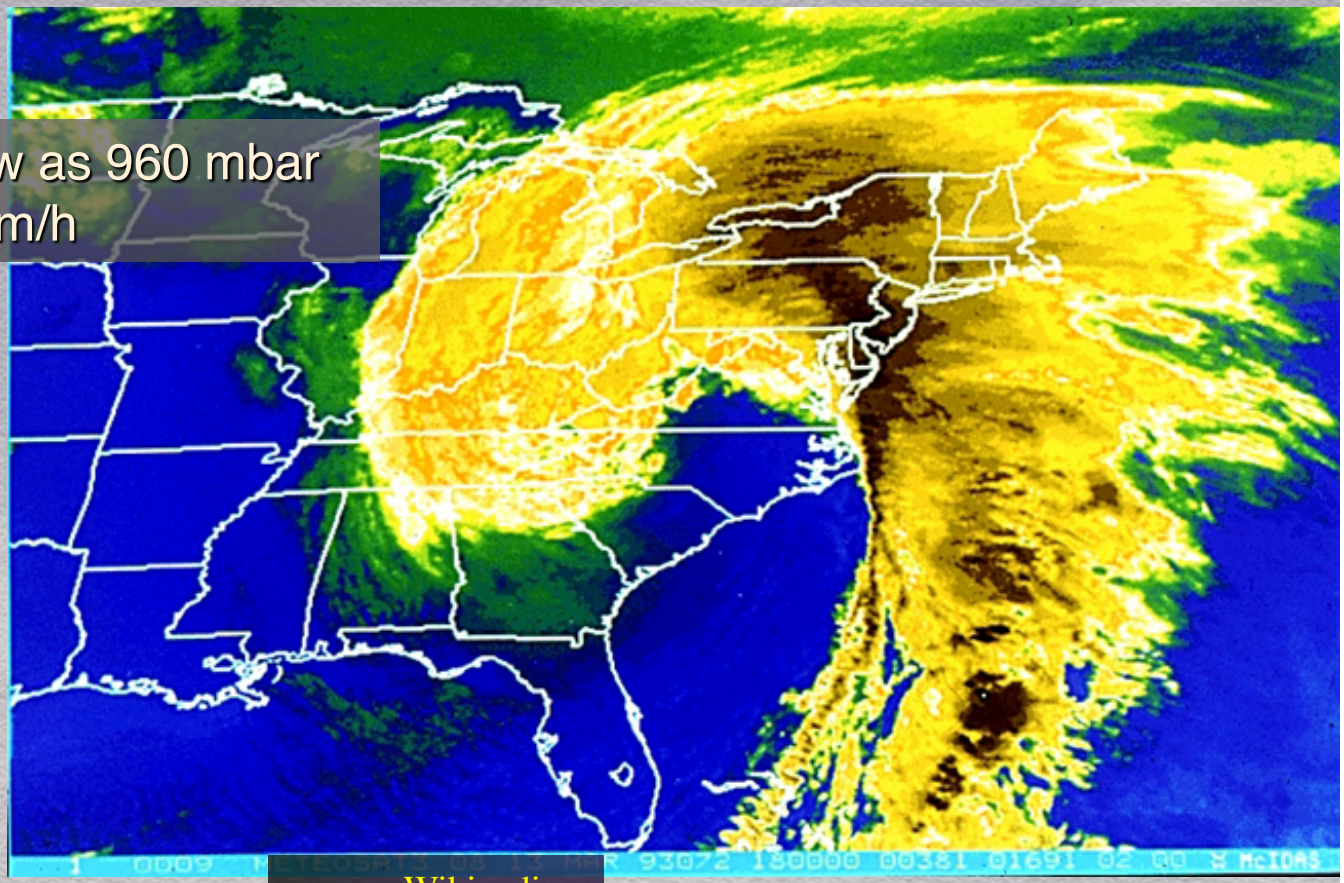
The 13 March 1993 “White Hurricane” Fig. 13.26

- largest and most intense extratropical storm ever to rake Atlantic seaboard
- “Storm of the Century”; ‘93 Superstorm
- driving blizzard from Georgia to Pennsylvania; 10 Mio people w/o el. power
- 26 states and Canada; 318 fatalities (FL 44; 15 tornadoes); $6 billion damages

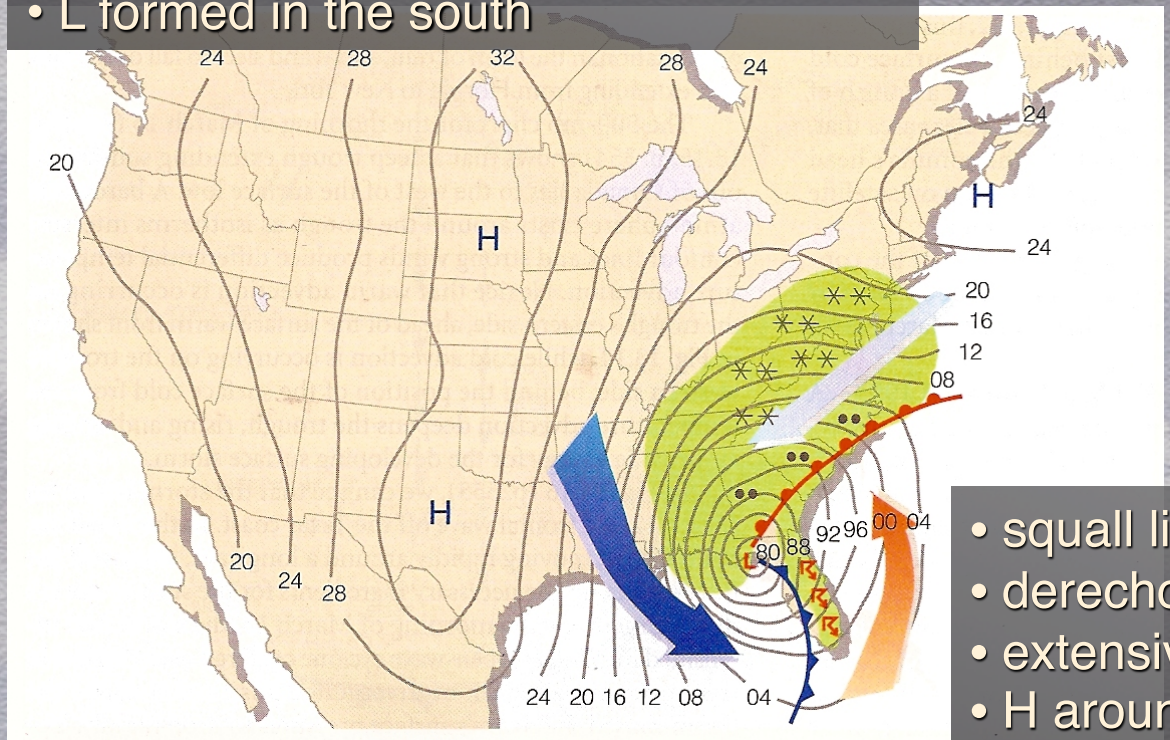
- central pressure as low as 960 mbar
- winds gusted at 160 km/h



source: Wikipedia

The 13 March 1993 "White Hurricane" Fig. 13.26

- 12-15 March
- temperature drop as Arctic H formed
- L formed in the south

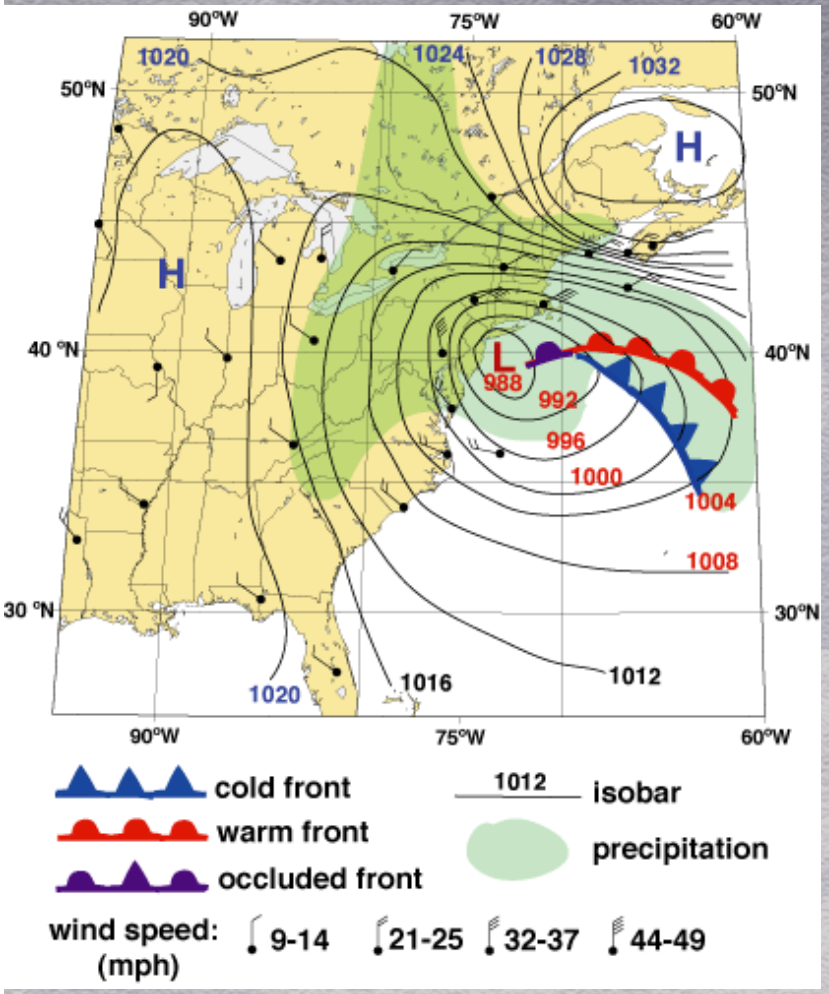


source: Ahrens "Meteorology Today"

- squall line/t-stroms leading cold front
- derecho winds in Florida
- extensive snow leading warm front
- H around storm steepened pressure gradient

Fig. 13.30

Nor'Easters



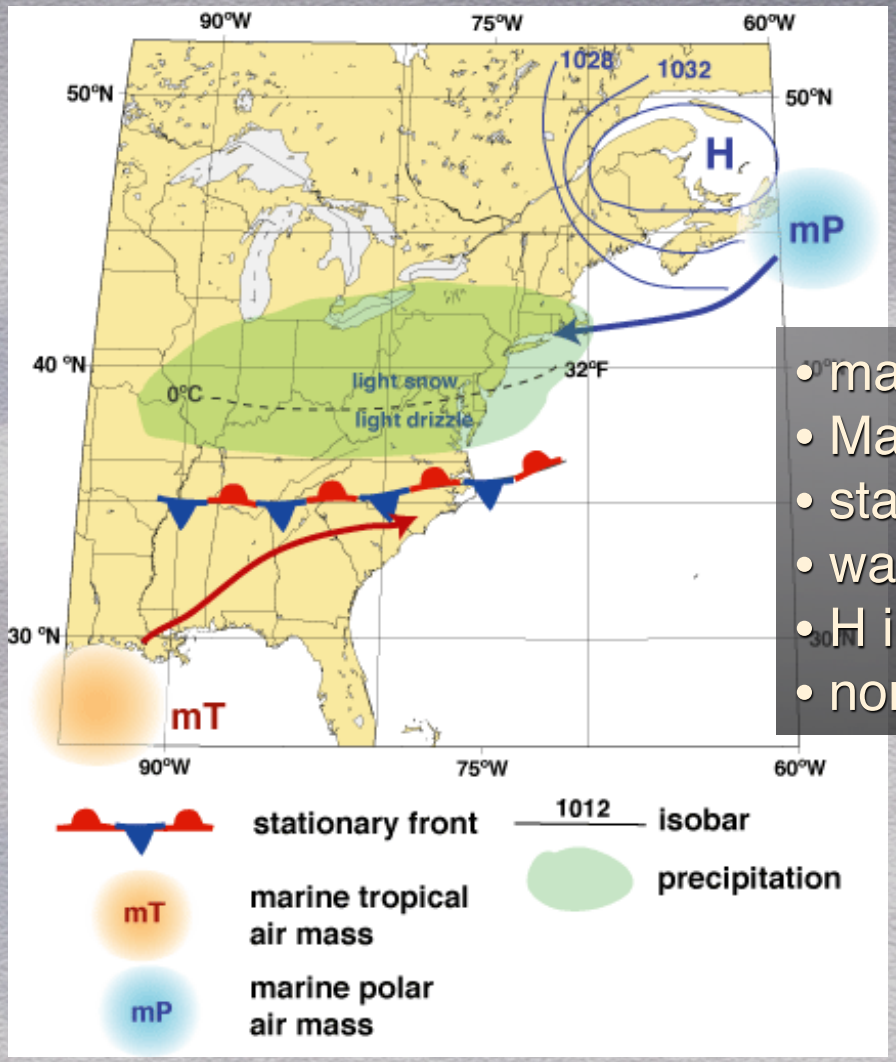
- large extratropical/mid-latitude cyclones
- affect Atlantic coast
- almost as strong as hurricane; COLD core
- H to the northeast steepens pressure gradient - > northeasterly winds

- gale-force northeasterly winds in NE
- high waves/coastal erosion
- heavy precipitation
- blizzards possible

usually late winter/early spring but can be as early as October (-> feed from dissipating hurricanes)

Fig. 13.30

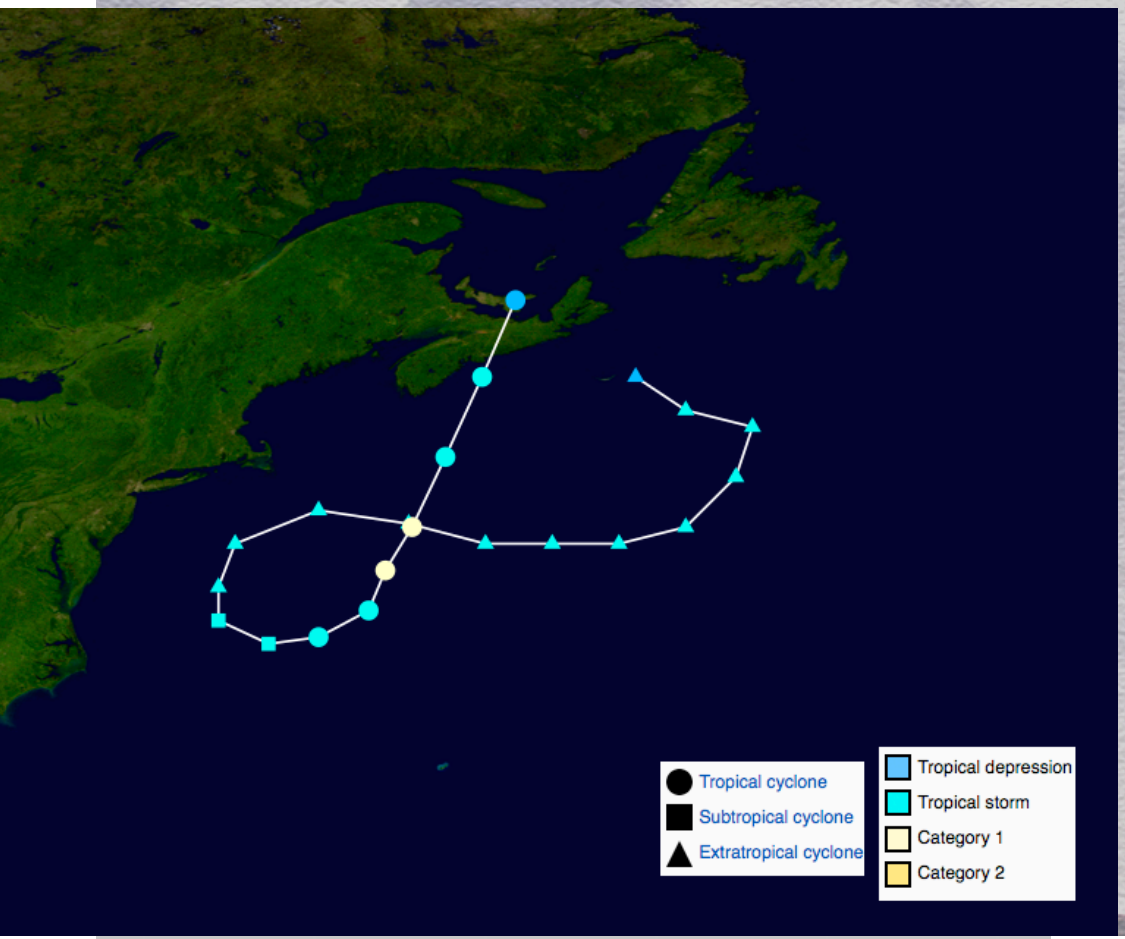
Nor'Easters

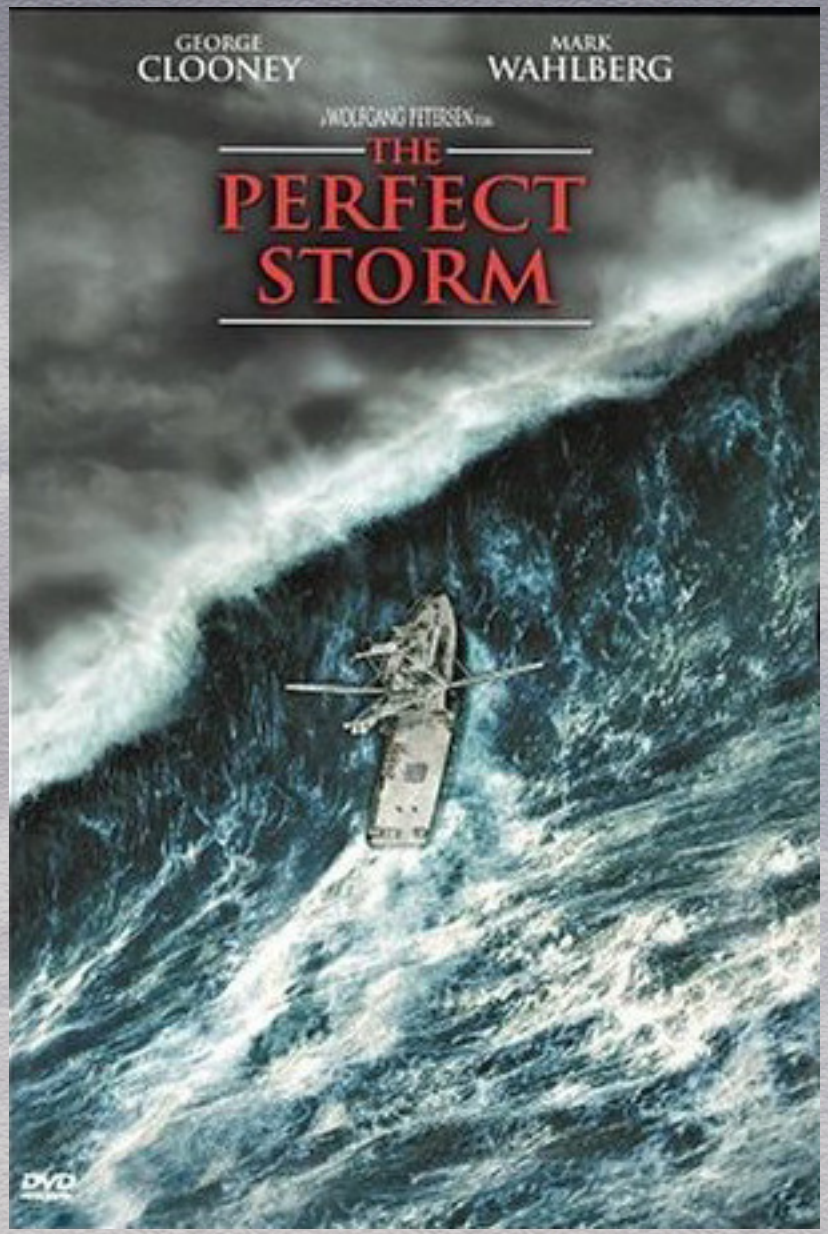


- maritime polar in N
- Maritime tropical in S
- stationary front
- wave cyclone
- H in northeast steepens pressure gradient
- northeasterly gales

Nor'Easters

- Halloween 1991 "Perfect Storm"
- merged with Hurricane Grace
- 11m high waves
- Nova Scotia buoy: 30.7 m!
- 13 fatalities; $200 Mio damage





Superstorm Sandy 2012

- hurricane + nor'easter

- tall ship HMS Bounty

- off North Carolina
- 14 member rescued
- 2 missing

source: Wikipedia