

2. Does this 500 mb vorticity max maintain or increase in intensity during the successive 12, 24, 36, and 48 hr charts?
3. Is this 500-mb vorticity max forecast to increase to at least a value of 20 or higher with a speed of 30 kt or greater during the forecast period?
4. Does a jet streak of 130 kt or greater exist at 250 mb or 300 mb in a position just south of the initial 500-mb vorticity max?
5. Does the NGM develop a surface low of 1000 mb or deeper over the forecast area during the 48 hr period? (with a pressure fall of 12 mb or greater in 24 hr—if so, a storm warning for the Gulf may be required)
6. Does the 500-mb trough show negative-tilt as it moves toward the forecast area?
7. Is the upstream 500-mb height falls at least 70 m/12 hr?
8. Is a 500-mb Low and/or vorticity max of at least 20 or higher forecast within 2–3 degrees of the deepening surface Low (sometimes superimposed) during the 48 hr period?
9. Is there an intrusion of tropical moisture (mid/hi-level) indicated from the tropical Pacific under the influence of a strong sub-tropical jet? (most always present when rapid intensification is observed)
10. Is there a strong, cold high pressure system forecast over the eastern section of the country with a central value of 1028 mb or higher during the forecast period? (normally occurs with a deep 500-mb trough over the northeast U.S.)—not that important a factor)

NOTE: “Explosive Cyclogenesis” normally occurs with an UPPER VORTEX PATTERN. This occurs more often during an EL NINO event.

Most cyclones developing in the Gulf of Mexico will probably require a GALE WARNING for a portion of the Gulf with pressures of 1006 mb or lower, and possible storm warnings for pressures of 1000 mb or lower.

NOTE: Items #2..3..4..6..7..8..and 9 are considered rather essential for “explosive cyclogenesis.”

Folklore

METEOROLOGY—THE ART AND THE SCIENCE OF IT. . . .

by Sue Mroz

Science likes to be as exact and specific as possible. In dealing with wind, for example, knots and degrees are used for speed and direction and they tell the meteorologist a great deal. But folklore writers, song-writers and poets seem to fill in the gaps and embellish weather data or put it in a more colorful, easier-to-remember form sometimes.

Longfellow seems to have captured the force and the eloquent beauty of an autumn wind with this line from his poetry. “Wild with the wind of September wrestled the trees of the forest.” The increasing presence of strong polar winds can be felt as cyclones and Canadian cold fronts march us even closer to winter.