



WINTER STORM UPDATE

Monday December 5, 2005 – 3:30 PM

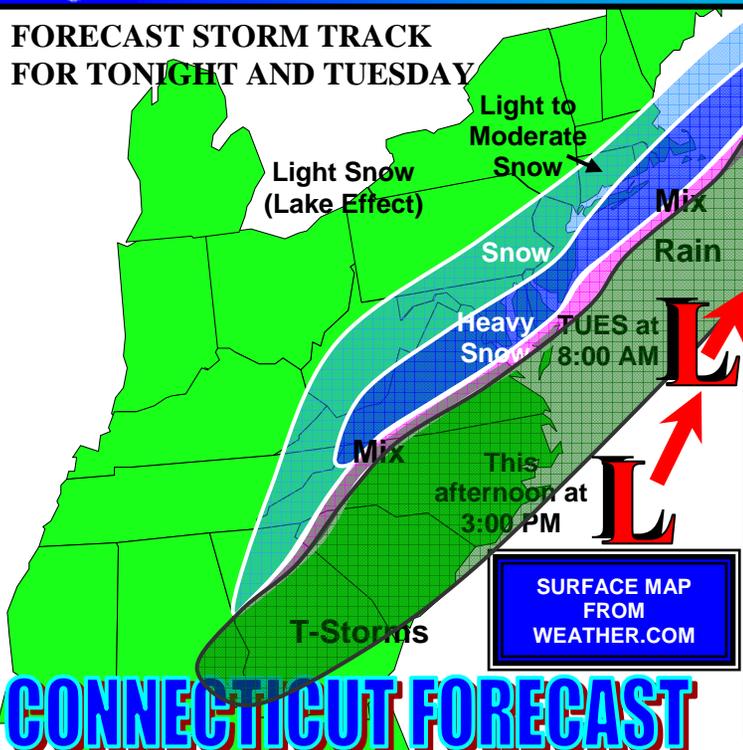
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DEPARTMENT OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

James M. Thomas, Commissioner
Wayne Sanford, Deputy Commissioner



FORECAST STORM TRACK FOR TONIGHT AND TUESDAY

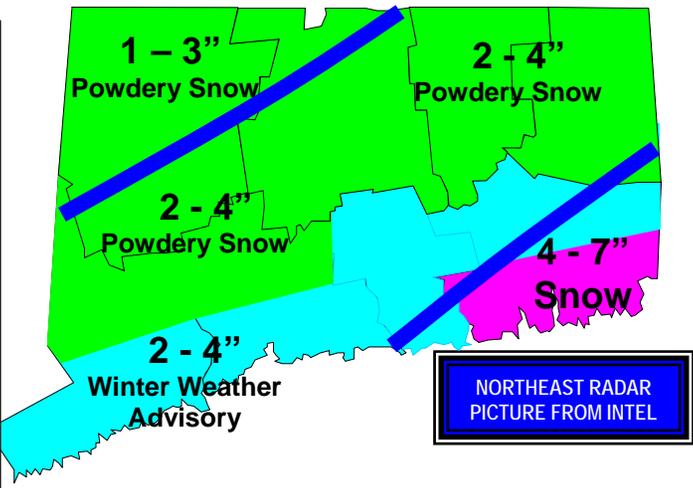


SURFACE MAP FROM WEATHER.COM

REGIONAL FORECAST

Light to Moderate Snow Expected for Connecticut late tonight and early Tuesday morning....
 A LOW PRESSURE SYSTEM CURRENTLY LOCATED EAST OF THE NORTH CAROLINA COAST IS FORECAST TO MOVE QUICKLY TO THE NORTHEAST OVERNIGHT AND PASS WELL SOUTHEAST OF NANTUCKET ON TUESDAY MORNING. A NARROW SHIELD OF HEAVY SNOW IS FORECAST OCCUR JUST TO THE SOUTH OF CONNECTICUT OVERNIGHT WITH LIGHT TO MODERATE SNOW BEGINNING THIS EVENING AND CONTINUING THROUGH NOON ON TUESDAY. SNOWFALL ACCUMULATIONS ARE EXPECTED TO RANGE FROM A FEW INCHES IN NORTHWESTERN CT UP TO 7 INCHES IN SOUTHEASTERN NEW LONDON COUNTY.

SNOWFALL FORECAST FOR TONIGHT & TUES



NORTHEAST RADAR PICTURE FROM INTEL

CONNECTICUT FORECAST

NWS ISSUES HEAVY SNOW WARNING FOR SOUTHERN NEW LONDON COUNTY... WINTER WEATHER ADVISORY ISSUED FOR THE REMAINDER OF COASTAL CONNECTICUT ...

This Evening At the Coast...Light Snow developing from Southwest to Northeast between 8:00 – 10:00 PM. Snow becoming moderate to heavy in Southern New London County between 2:00 AM and 8:00 AM. Temperatures falling into the upper 20 's with Northeast winds at 15 - 20 mph. **In Central Connecticut...**Light Snow developing from Southwest to Northeast between 10:00 PM and 1:00 AM. Snowfall becoming steady for several hours between 3:00 AM and 7:00 AM with temperatures in the mid 20's. **Northwest Hills...** Light Snow beginning between 10:00 PM and Midnight and continuing overnight. Temperatures are expected to fall into the lower 20's with Northeast winds around 15 – 20 MPH.

Tuesday morning...Snow in southeastern CT and light snow across the rest of the state is expected to taper off to flurries from West to East between 7:00 AM and 9:00 AM. Temperatures in the mid 20's with Northwest winds increasing to 15 - 25 MPH during Tuesday afternoon.

No significant coastal flooding or icing is expected with this storm. Another update will be issued by Homeland Security at 8:30 AM Tuesday morning or sooner if the forecast changes.

WATCHES & WARNINGS

Coastal Flood Warning

No Coastal Warnings In Effect

Heavy Snow Warnings

Southern New London County

Advisories

Coastal Connecticut
Southern Half of Fairfield, New Haven all of Middlesex County

Introduction

SKIP INTRO

IN AN EFFORT TO BETTER COORDINATE THE RESPONSE TO WINTER STORMS, SEVERE WEATHER AND OTHER WEATHER EVENTS THAT MIGHT AFFECT LARGE AREAS OF CONNECTICUT, THE DEP IS GOING TO ISSUE TECHNICAL DISCUSSIONS WITHIN IT'S WEATHER UPDATES IN ADVANCE OF APPROACHING STORMS ON A TRIAL BASIS. THESE TECHNICAL DISCUSSIONS ARE INTENDED TO PROVIDE THE USER WITH MORE DETAIL AND ANALYSIS OF APPROACHING STORMS. THE FOLLOWING IS AN EXPLANATION OF THE THREE MOST COMMONLY USED COMPUTER MODELS FOR PREDICTING WEATHER.

THE ETA (NUMERICAL) MODEL:

THE ETA IS A SHORT RANGE 72 HOUR FORECAST MODEL. THE ETA SHOWS THE TRACKS OF LOWS AND HIGHS AND THEIR ASSOCIATED WARM AND COLD FRONTS. THE ETA IS SOMETIMES KNOWN AS THE "WET MODEL" BECAUSE THE ETA TENDS TO OVER-ESTIMATE THE AMOUNT OF RAIN OR SNOW FROM AN APPROACHING STORM.

THE GFS (GLOBAL FORECAST SYSTEMS)

THE GFS IS ALSO A SHORT RANGE 72 HOUR FORECAST MODEL. THE GFS ALSO SHOWS THE TRACKS OF LOWS AND HIGHS AND THEIR ASSOCIATED WARM AND COLD FRONTS. THE GFS IS SOMETIMES CALLED THE "DRY MODEL" BECAUSE THE GFS TENDS TO UNDER-ESTIMATE THE AMOUNT OF RAIN OR SNOW FROM AN APPROACHING STORM.

THE MRF (MEDIUM RANGE FORECAST) MODEL

THE MRF IS A MEDIUM RANGE 10 DAY FORECAST MODEL. THE MRF IS THE MODEL MOST COMMONLY USED TO PREDICT STORMS THAT ARE BETWEEN 4 - 10 DAYS AWAY FROM CONNECTICUT. THE MRF IS ALSO SOMETIMES A "WET MODEL". IT WILL SHOW A STORM SYSTEM BUT WILL NOT SHOW ITS REAL INTENSITY MORE THAN 4 DAYS IN ADVANCE. THIS IS BECAUSE A NUMERICAL BUFFER SYSTEM IS BUILT INTO THE MRF MODEL. THIS NUMERICAL BUFFER IS DESIGNED TO SMOOTH OUT ERRORS IN THE MODEL AND THIS HAS THE EFFECT OF WATERING DOWN THE INTENSITY OF STORMS THAT ARE MORE THAN 4 DAYS AWAY.

ALL THREE MODELS ALSO SUFFER FROM THE FOLLOWING FORECAST DEFICIENCIES:

- 1) THEY (ETA, GFS, MRF) TEND TO UNDER-ESTIMATE THE FORWARD SPEED OF STORMS. THUS, MOST STORMS MOVE FASTER THAN THE FORECAST AND NORMALLY END SOONER THAN EXPECTED.
- 2) THEY TEND TO OVER-ESTIMATE THE DAMMING OF COLD AIR IN NEW ENGLAND. THUS, STORMS TEND TO CHANGE TO RAIN SOONER THAN EXPECTED.
- 3) THEY ALL USE SIMILAR DATA AT THE START OF THEIR FORECAST RUNS. ANY ERRORS IN THE STARTING DATA CAN BE MAGNIFIED BY THE COMPUTERS WHEN THEY MAKE THEIR FORECASTS.
- 4) THEY CANNOT TELL YOU EXACTLY WHERE A SEVERE THUNDERSTORM WILL OCCUR. THEY CAN ONLY TELL YOU WHAT AREA'S ARE PRONE TO SEVERE THUNDERSTORMS. THIS ALSO APPLIES TO TORNADOES, HAIL, HIGH WINDS AND FLOODING.

WHEN THE MODELS CANNOT DETERMINE THE PRECISE FORECAST, IT IS UP TO THE FORECASTER TO USE HIS OR HER JUDGEMENT. EVERY FORECASTER HAS HIS OR HER OWN FAVORITE MODEL. THIS EXPLAINS WHY YOU SEE DIFFERENT FORECASTS FROM EACH NWS OFFICE AND FROM THE BROADCAST MEDIA FOR THE SAME STORM. I TRY TO INCORPORATE ALL THREE MODELS INTO MY FORECASTS TO REDUCE THE BIAS OF ANY ONE MODEL. HOWEVER I DO TEND TO SLIGHTLY FAVOR THE ETA AND MRF MODELS IN MY FORECASTS. THESE MODELS PROVIDE A MORE CONSERVATIVE (WORST CASE) FORECAST THAN THE GFS MODEL. THE MORE CONSERVATIVE FORECASTS ARE GOOD FOR PLANNING FOR THE WORST CASE SCENARIO. MY FORECASTING TECHNIQUE IS KNOWN AS CONSENSUS FORECASTING (USING SEVERAL MODELS AND CONSULTING THE NWS TO GET A CONSENSUS). THIS IS TYPICALLY MORE ACCURATE THAN FORECASTS BASED ON A SINGLE MODEL. HOWEVER I AM NOT GOING TO BE PERFECT.

THE TECHNICAL DISCUSSION IS PROVIDED SO YOU CAN SEE WHAT I SEE WHEN I PREPARE A FORECAST. THIS ADDITIONAL INSITE MAY HELP THE DECISION MAKING PROCESS DURING THE STORM.

Technical Discussion

Not available at this time.