WINTER STORM SUMMARY FOR
FEBRUARY 24, 2005 TO FEBRUARY 25, 2005 EVENT

Synopsis

Low pressure formed over the Gulf Coast states on Wednesday, February 23rd. This low pressure system then moved into the Carolinas during Thursday the 24th. Meanwhile an upper-level disturbance was moving southeastward from the Midwest and toward the Middle Atlantic region. As the surface low pressure system exited off the Middle Atlantic coast Thursday afternoon, the upper-level disturbance soon followed and moved across the region Thursday night, enhancing the snowfall a bit. Both systems spread snow across the entire area Thursday, Thursday night and into early Friday morning. Drier air associated with a weak high pressure system then arrived early Friday morning behind the departing storm systems.

Watches/Warnings/Advisories

A Winter Storm Watch for Thursday and Thursday night was issued at 3:35 AM on Wednesday, February 23rd. This watch included the following counties, Atlantic (including coastal areas), Cape May (including coastal areas), Camden, Ocean (including coastal areas), Cumberland, Gloucester, Salem, Northwestern Burlington and Southeastern Burlington in New Jersey; Caroline, Cecil, Queen Anne's, Talbot and Kent in northeast Maryland; New Castle, Kent and Sussex (including the Beaches) in Delaware; and Delaware and Philadelphia in Pennsylvania. At 4 PM on the 23rd, the Winter Storm Watch was upgraded to a Winter Storm Warning for the counties listed above, however the following counties were added to the warning, Bucks, Montgomery and Chester in Pennsylvania; Monmouth (including coastal areas) and Mercer in New Jersey. Also at 4 PM, a Snow Advisory was issued for the following counties, Carbon, Monroe, Berks, Lehigh, and Northampton in Pennsylvania; Sussex, Warren, Morris, Hunterdon, Somerset, and Middlesex. At 9:05 PM February 23rd, the above Winter Storm Warnings and Snow Advisories were continued for the same counties. At 5:15 AM Thursday, February 24th, the Winter Storm Warnings and Snow Advisories continued, however the following counties that were under a Snow Advisory were upgraded to a Winter Storm Warning, Hunterdon and Somerset in New Jersey. At 11:15 AM on the 24th, the Warnings and Advisories remained in effect unchanged from the 5:15 AM issuance. At 2:40 PM on the 24th, all Winter Storm Warnings and Snow Advisories remained in effect and were unchanged with respect to the counties that were included. At 9:25 PM, the Winter Storm Warnings were cancelled for extreme southern New Jersey, central and southern Delaware, and all of the northeast Maryland counties except Cecil. Elsewhere, the Winter Storm Warnings and Snow Advisories remained in effect until Midnight February 25th. At 12:10 AM February 25th, the remaining Warnings and Advisories were cancelled.

Precipitation/Temperatures/Winds

Temperatures across the entire region were below freezing Thursday morning. Snow began to overspread northeast Maryland and Delaware early Thursday morning. This snow then began to spread across portions of southern New Jersey by mid-morning. Further to the north, the snow ran into a drier air mass initially therefore the snow was falling as virga, precipitation evaporating before reaching the ground, for awhile. Eventually moderate to occasionally heavy snow moved into northeast Maryland, Delaware and southern New Jersey. This area of snow then began to move northward through Thursday morning, and overspread nearly the entire area by midday. The snow continued through the afternoon across the entire region, at varying intensity. The snow then continued through most of Thursday night as the surface low moved off the North Carolina coast. However, as an upper-level disturbance moved across the region from the west late Thursday night, the snow kept going into the very early morning hours of Friday, February 25th. Amazingly, the eastward movement of the snow really picked up and the snow quickly tapered off from west to east during early Friday morning, leaving nearly clear skies in its wake. Total snowfall ranged from 3 to 7 inches across the entire region, with the higher amounts found across southeast Pennsylvania, central and southern New Jersey, northeast Maryland and Delaware. Temperatures during this event remained below freezing for nearly the entire region. Somewhat milder air did sneak into coastal areas of southeast New Jersey and Delaware were some sleet mixed in and even the snow changed to light rain for a time for a few coastal communities. Generally though, the temperatures fell a few degrees once the snow began, with all areas experiencing a temperature drop through the mid to especially late afternoon hours on Thursday. Winds during this storm averaged from the east and northeast at 10 to 20 mph. At times the winds did get a bit gusty across the inland areas, however for some coastal communities the onshore wind gusted to between 30 and 40 mph. The wind

coupled with the fallen snow, and ongoing snow greatly reduced the visibilities along the coast and for some inland areas. Overall there was not a lot of blowing and drifting snow during this storm, with the exception of some locations closer to the coast.

Significant Impacts/Aspects

While this storm was not a huge snowstorm, it was the first widespread winter storm to hit the region during a weekday. Previous storms either occurred on a weekend or holiday. This storm was interesting from an accumulation aspect as the steady snow started during the daylight hours. Even though the air temperature across the majority of the region remained below freezing during the day on Thursday, the snow had a difficult time sticking to the roadways. Even though the snow was moderate to heavy at times across some areas, the higher sun angle this time of year along with pavement temperatures just above freezing, allowed the snow to melt on the roads. The areas that were mostly impacted during the day were bridges and overpasses. Several slippery spots were reported on bridges and overpasses from late Thursday morning and especially Thursday afternoon. However, toward 4 PM or so on Thursday, the sun angle was much less compared to earlier in the afternoon and as the sun set, the snow began to accumulate on the roads. This was due to the pavement temperatures dropping thanks to the cooling effect of the melting snow at first. As a result, road conditions quickly deteriorated during the evening hours, which continued overnight and into Friday morning. With the storm arriving during a weekday, most schools in the region either closed on Thursday, or had an early dismissal. Some schools did close on Friday as well, with many having an hour or two delay in the morning. Air travel was also impacted during this winter storm, as delays were reported at area airports. Road conditions quickly improved for most areas during Friday morning as the sunshine helped to melt off the lingering snow and ice, which was packed down on several roads by traffic Thursday night.

Notes

Information contained in this summary is preliminary. More complete and/or detailed information may be contained in subsequent monthly NOAA storm data publications.