Amanda Reynolds Forensic Analysis Annapolis, MD Hypothermia Death

I reviewed the weather conditions for Annapolis Maryland on January 25<sup>th</sup> 2000. I looked at the surface observations from the nearest airport, Baltimore – Washington International (BWI), which is approximately 30 miles away, in addition to the NEXRAD radar over Annapolis. Using this information, I was able to, with a reasonable amount of meteorological certainty, determine the weather conditions in the area.

On Tuesday January 25<sup>th</sup> 2000, there was a low pressure system off the east coast of the US, just to the south of Maryland that brought substantial winds out of the North and Northeast. The high temperature for the day occurred near midnight (32 degrees F) and stayed there until around 3:30am when temperatures began to drop. After that, temperatures slowly declined to around 26 degrees F around 1pm, the end of the time frame in question. The entire time, winds were coming roughly out of the North from around 15-20 miles per hour. In the late morning (8am – 12pm) winds were gusting above 25 miles per hour reaching a maximum of 30 miles per hour at 9:20am. Taking the temperature and wind into consideration, wind chills for the time in question were well into the threshold of becoming frost bitten within 30 minutes. Wind chills ranged from a maximum of 23 degrees F (1:00am) to 11.7 degrees F (11:00 am). Any precipitation that fell would have likely been in the form of snow based on the temperatures at the surface, the radar observations and the observations at BWI airport. Airport observations indicate that heavy snow was falling between 4:00 and 7:00am in addition to overcast skies and some dense fog on the morning of January 25<sup>th</sup>. Sunrise would have occurred around 7:20am.

This analysis is done under the assumption that weather conditions were very similar at Baltimore-Washington International airport and Annapolis, Maryland where the death took place. Any minor differences in conditions between these two locations may cause errors in the exact meteorological science. Attached is the table of weather observations taken at the BWI Airport.