OVERVIEW

Weather and climate affect most aspects of life. Information about particular weather or climate conditions can influence legal issues such as traffic accidents, construction delays, property damage, agricultural losses, work-related accidents, personal injury, and unlawful death or homicide. In many areas of litigation, weather factors can be critical, and sometimes determining, factors in establishing liability. NOAA’s National Climatic Data Center (NCDC) is the official archive facility for U.S. climatic data records and can provide exact duplicates of climatic records on file. Properly authenticated copies or transcripts of records or publications can be admitted in evidence as equal to the original documents. Having access to relevant and accurate weather and climate information is essential to effectively assist in proving or disproving whether environmental conditions may have influenced any circumstances surrounding a judicial case.

KEY STAKEHOLDERS

There are many different governmental and non-governmental organizations, public and private groups and businesses, and individuals that can benefit from using relevant climate and weather-related information for their legal needs and services. Some examples of key stakeholders in the litigation sector who are relevant to the resolution of legal disputes include those involved in:

• Motor vehicle, aviation, railroad, marine, and boating accidents
• Extreme weather incidents and accidents
• Environmental issues, such as air pollution and poor air quality
• Engineering, structural design, and construction
• Criminal investigations and forensic meteorology
• Insurance disputes
• Agricultural interests

SECTOR NEEDS

Climate information is often available only as raw observations or in the form of tables, graphs, or written summaries, which may be difficult for users who are not well-versed in climate science to fully interpret. To bridge this gap, NCDC is partnering with groups within the litigation sector to translate climate data into accessible, useful, and accurate products; and to leverage NCDC’s climate expertise to better understand what the information means and how it can be used most effectively.
Climate information can be used in a variety of ways. Some examples include:

- Using meteorological data as evidence in court to help prove or disprove theories in criminal or civil investigations.
- Using hourly surface weather observations and area weather summaries as evidence for injuries or death argued to be caused by weather conditions.
- Using hourly surface weather observations to help prove or disprove if weather conditions, such as rain, snow, ice, wind, or sunshine, contributed to various types of accidents.
- Using surface and upper air observations and charts, Doppler radar, and satellite images to investigate the causes of aviation incidents and accidents.
- Using meteorological data to reconstruct localized weather events.

NCDC DATA AND PRODUCTS

There are many different types of useful climate information available. Examples include:

- The Severe Weather Data Inventory (SWDI), which includes information critical to the detection and evaluation of severe weather derived from radar, such as features related to general storm structure, hail, and tornadoes, preliminary and verified reports of storm damage, and National Weather Service Warning areas.
- Hourly and daily reports in the form of Surface Weather Observations derived from the Quality-Controlled Local Climatological Data and daily summaries from the Record of Climatological Observations.
- Climate Normals, which are the average values of meteorological data, such as temperature, precipitation, frost/freeze data, and snowfall data, over 30 years. The normal climate helps describe the climate and is used as a base to which current conditions can be compared.
- Publications, including Storm Data (provides monthly reports of damaging weather), Local Climatological Data (provides a monthly summary of daily observations), Climatological Data (provides annual average values), and Comparative Climatic Data (provides average and extreme values).
- Automated Surface Observations System (ASOS) 1-Minute Surface Data, which is meteorological data collected minute-by-minute, including air temperature/dew point, wind speed and direction, visibility, cloud height, cloud layer thickness, pressure, and precipitation accumulation.
- CD-ROMs/DVDs, such as the International Station Meteorological Climate Summary, which contains climatic data summaries from thousands of weather stations around the world, and the Integrated Surface Data database, which contains hourly weather data for about 10,000 weather stations, with some information dating back as far as 1901.

Ongoing communication is important to ensure that the information that NCDC provides is appropriate and applicable to legal sector needs. As climate changes in the years ahead and the effects become more noticeable, new information needs will emerge. NCDC will work closely with this sector, attending trade meetings and sponsoring future workshops and conferences, in order to better understand, address, and anticipate these needs.

Additional details about available NOAA products and the economic benefits of these products are provided at: http://www.economics.noaa.gov

For further information on obtaining NCDC climate services and products related to litigation please contact:

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NOAA Satellite and Information Service
National Environmental Satellite, Data, and Information Service (NESDIS)
National Climatic Data Center (NCDC)
U.S. Department of Commerce

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