

Topics	Notes, Diagrams, Drawings
Surface Report	<ul style="list-style-type: none"><li>• Describes a set of weather measurements made <b>on Earth's surface</b></li><li>• Weather variables are measured by a weather station, a collection of instruments that report temperature, air pressure, humidity, precipitation, wind speed and direction</li></ul>
Upper-air Report	<ul style="list-style-type: none"><li>• Describes wind, temperature, and humidity conditions <b>above Earth's surface</b></li><li>• Atmospheric conditions are made measured by a radiosonde, a package of weather instruments carried by a weather balloon</li><li>• Radiosonde reports are made 2x a day simultaneously at hundreds of locations around the world.</li></ul>
Satellite & Radar Images	<ul style="list-style-type: none"><li>• Images taken from satellites orbiting 35,000 km above earth provide information about weather conditions on Earth</li><li>• Radar measures precipitation when radio waves bounce off rain drops and snowflakes</li></ul>
Doppler Radar	<ul style="list-style-type: none"><li>• is a specialized radar that can detect precipitation as well as the movement of small particles, which can be used to approximate wind speed</li></ul>

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The Station Model	<ul style="list-style-type: none"> <li>• Displays data from many different weather measurements for a particular location</li> <li>• It uses numbers and symbols to display data and observations from surface reports and upper-air reports</li> </ul> <p>The Station Model Picture:</p>
Isobars	<ul style="list-style-type: none"> <li>• Lines that connect all places on a map where pressure has the same value</li> <li>• Show locations of high and low pressure systems</li> <li>• Can also provide information about wind speed</li> </ul> <p>Isobars Picture:</p>
Computer Models	<ul style="list-style-type: none"> <li>• Detailed computer programs that solve a set of complex mathematical formulas</li> <li>• Formulas predict what temperatures and winds might occur, when and where it will rain and snow, and what types of clouds will form.</li> <li>• Ultimately meteorologists analyze data from various sources—such as radar and computer models—in order to prepare weather forecasts</li> </ul>