

## 7. COMPUTER/INTERNET

### 7.1. WEATHER AND CLIMATE ON THE WEB

Current weather data can be obtained on the web. Electronic media are rapidly expanding and changing, so keeping track of updates and address changes for favorite weather web sites is suggested. Since the income of many providers comes from the timeliness of the information, time

lags are introduced before data access is opened to the public. These delays may range from 15 minutes to an hour or more until the information is considered too old to be of commercial value. While this list is not exhaustive, most addresses link to related sites.

Climate Change  
Climate Prediction Center  
Colorado Climate Center  
El Niño/La Niña  
NOAA  
National Climatic Data Center  
National Weather Service  
UCAR  
Environmental News Network  
Environmental Protection Agency  
Climate Summaries for Cities and States  
Human Dimension of Climate/Meteorological Hazard  
National Climatic Data Center, NOAA  
Worldwide Weather Events of 1991-2000

AccuWeather  
CNN Weather  
Forecast Systems Laboratory, NOAA  
NCAR - UNIDATA  
NWS - Interactive Weather Information Network  
Oklahoma Weather Roundup  
Pennsylvania State University  
Purdue University - UNISYS  
Texas A & M University  
The Weather Underground, University of Michigan  
University of Wisconsin  
USA Today Weather Page  
The Weather Channel  
Weather Links  
WGN-TV, Chicago  
Wind Profilers

Federal Emergency Management Agency (FEMA)  
Building Performance Assessment Team  
Hazardous Weather and Flood Guide  
Taking Shelter From the Storm  
Weather Information for Kids

NASA  
Education  
Marshall Space Flight Center  
Satellites – Weather  
Spaceflight Meteorology Group

#### Climate

[www.cip.ogp.noaa.gov](http://www.cip.ogp.noaa.gov)  
[www.cpc.noaa.gov](http://www.cpc.noaa.gov)  
[ulysses.atmos.colostate.edu](http://ulysses.atmos.colostate.edu)  
  
[www.elnino.noaa.gov](http://www.elnino.noaa.gov)  
[ibis.grdl.noaa.gov/SAT/near\\_rt/enso/topex\\_97.html](http://ibis.grdl.noaa.gov/SAT/near_rt/enso/topex_97.html)  
[www.cpc.noaa.gov/products/analysis\\_monitoring/impacts/enso.html](http://www.cpc.noaa.gov/products/analysis_monitoring/impacts/enso.html)  
[www.esig.ucar.edu/un/index.html](http://www.esig.ucar.edu/un/index.html)  
[www.enr.com/specialreports/climate/](http://www.enr.com/specialreports/climate/)  
[www.epa.gov/globalwarming/](http://www.epa.gov/globalwarming/)  
[www.cdc.noaa.gov/USclimate](http://www.cdc.noaa.gov/USclimate)  
[www.fragilecolonies.com/mglantz](http://www.fragilecolonies.com/mglantz)  
[www.ncdc.noaa.gov/](http://www.ncdc.noaa.gov/)  
[www.ncdc.noaa.gov/ol/reports/weather-events.html](http://www.ncdc.noaa.gov/ol/reports/weather-events.html)

#### Current U.S. Weather

[www.accuwx.com](http://www.accuwx.com)  
[www.cnn.com/WEATHER/index.html](http://www.cnn.com/WEATHER/index.html)  
[www.fsl.noaa.gov/docs/wthr/fsl-weather.html](http://www.fsl.noaa.gov/docs/wthr/fsl-weather.html)  
[www.rap.ucar.edu/weather/  
weather.gov/](http://www.rap.ucar.edu/weather/weather.gov/)  
[www.caps.ou.edu/wx/](http://www.caps.ou.edu/wx/)  
[www.ems.psu.edu/wx/](http://www.ems.psu.edu/wx/)  
[weather.unisys.com/](http://weather.unisys.com/)  
[www.met.tamu.edu/weather.shtml](http://www.met.tamu.edu/weather.shtml)  
[cirrus.sprl.umich.edu/wxnet/](http://cirrus.sprl.umich.edu/wxnet/)  
[www.ssec.wisc.edu/data/](http://www.ssec.wisc.edu/data/)  
[www.usatoday.com/weather/](http://www.usatoday.com/weather/)  
[www.weather.com](http://www.weather.com)  
[cirrus.sprl.umich.edu/wxnet/servers.html](http://cirrus.sprl.umich.edu/wxnet/servers.html)  
[www.wgntv.com](http://www.wgntv.com)  
[www-dd.fsl.noaa.gov/online.html](http://www-dd.fsl.noaa.gov/online.html)

#### Federal Agencies (Except NOAA)

[www.fema.gov](http://www.fema.gov)  
[www.fema.gov/mit/bpat/](http://www.fema.gov/mit/bpat/)  
[www.fema.gov/library/toc.doc](http://www.fema.gov/library/toc.doc)  
[www.fema.gov/saferoom/](http://www.fema.gov/saferoom/)  
[www.fema.gov/kids](http://www.fema.gov/kids)

[www.nasa.gov](http://www.nasa.gov)  
[www.hq.nasa.gov/office/coddef/education](http://www.hq.nasa.gov/office/coddef/education)  
[www1.msfc.nasa.gov/](http://www1.msfc.nasa.gov/)  
[www.hq.nasa.gov/office/pao/History/weathsat.html](http://www.hq.nasa.gov/office/pao/History/weathsat.html)  
[spaceflight.nasa.gov/realdata/weather/](http://spaceflight.nasa.gov/realdata/weather/)

Tropical Rainfall Measuring Mission (TRMM)	<a href="http://trmm.gsfc.nasa.gov/">trmm.gsfc.nasa.gov/</a>
National Center for Atmospheric Research (NCAR)	<a href="http://www.ncar.ucar.edu/">www.ncar.ucar.edu/</a>
Atmospheric Technology Division	<a href="http://www.atd.ucar.edu">www.atd.ucar.edu</a>
COMET	<a href="http://www.comet.ucar.edu">www.comet.ucar.edu</a>
MM5 Computer Model	<a href="http://rain.mmm.ucar.edu/mm5/pages/simple.html">rain.mmm.ucar.edu/mm5/pages/simple.html</a>
Photo Archive	<a href="http://www.dir.ucar.edu/iss/dmc/">www.dir.ucar.edu/iss/dmc/</a>
Time	<a href="http://time.gov">time.gov</a>
Time Zone Conversions	<a href="http://atm.geo.nsf.gov/ieis/time.html">atm.geo.nsf.gov/ieis/time.html</a>
Water Information – USGS	<a href="http://water.usgs.gov/droplet">water.usgs.gov/droplet</a>
Univ. Corp. for Atmospheric Research (UCAR)	<a href="http://www.ucar.edu">www.ucar.edu</a>
USGS Real-time Streamflow and Lake Level Data	<a href="http://water.usgs.gov/public/realtime.html">water.usgs.gov/public/realtime.html</a>

### **Foreign Weather**

All Foreign Weather Agencies (World Meteorological Organization)	<a href="http://www.wmo.ch">www.wmo.ch</a>
Australia	<a href="http://www.bom.gov.au">www.bom.gov.au</a>
Brazil (Portuguese)	<a href="http://www.cbn.net.id/commerce/bmg/">www.cbn.net.id/commerce/bmg/</a>
Canada	
Canadian Meteorological Centre	<a href="http://www.cmc.ec.gc.ca/indexe.html">www.cmc.ec.gc.ca/indexe.html</a>
Canadian Storm Chasers	<a href="http://www.interlog.com/~jmckay/chaser.htm">www.interlog.com/~jmckay/chaser.htm</a>
Environment Canada (English and French)	<a href="http://www.msc-smc.ec.gc.ca/index_e.cfm">www.msc-smc.ec.gc.ca/index_e.cfm</a>
Montréal (French)	<a href="http://www.meteo.org/">www.meteo.org/</a>
Finland	<a href="http://www.geo.fmi.fi">www.geo.fmi.fi</a>
France (French)	<a href="http://www.meteo.fr">www.meteo.fr</a>
Hungary (Hungarian)	<a href="http://www.met.hu">www.met.hu</a>
Indonesia	<a href="http://www.cbn.net.id/commerce/bmg/">www.cbn.net.id/commerce/bmg/</a>
Spain (Spanish)	<a href="http://www.inm.es">www.inm.es</a>
Worldwide 5-day Forecasts	<a href="http://weather.yahoo.com">weather.yahoo.com</a>

### **Lightning**

Alberta, Canada Lightning (Fire Weather)	<a href="http://www.gov.ab.ca/env/forests/fpd/ld.html">www.gov.ab.ca/env/forests/fpd/ld.html</a>
Children's Lightning Safety	
Sabrina Harwood	<a href="http://www.azstarnet.com/~anubis/zaphome.htm">www.azstarnet.com/~anubis/zaphome.htm</a>
Kids' Safety Essay	<a href="http://www.strikingimages.com/safety.htm">www.strikingimages.com/safety.htm</a>
Global Atmospherics, Inc.	<a href="http://www.glatmos.com">www.glatmos.com</a>
Lightning Safety Group Recommendations	<a href="http://www.glatmos.com/lightinfo/recommendations.html">www.glatmos.com/lightinfo/recommendations.html</a>
Lightning Strike and Electric Shock Survivors International, Inc.	<a href="http://www.mindspring.com/~lightningstrike">www.mindspring.com/~lightningstrike</a>
National Lightning Safety Institute	<a href="http://www.lightningsafety.com">www.lightningsafety.com</a>
Optical Transient Detector	<a href="http://www.ghcc.msfc.nasa.gov/otd.html">www.ghcc.msfc.nasa.gov/otd.html</a>
Sprites and Jets	<a href="http://elf.gi.alaska.edu">elf.gi.alaska.edu</a>
Striking Images	<a href="http://www.strikingimages.com">www.strikingimages.com</a>
Univ. of Illinois at Chicago - Medical/Dr. Cooper	<a href="http://www.uic.edu:80/~macooper/cindex.htm">www.uic.edu:80/~macooper/cindex.htm</a>

### **Meteorological Education Sites**

American Meteorological Society (AMS)	<a href="http://www.ametsoc.org/AMS/amsedu/index.html">www.ametsoc.org/AMS/amsedu/index.html</a>
Blue Hill Observatory	<a href="http://www.bluehill.org">www.bluehill.org</a>
Careers in Atmospheric Science	<a href="http://atm.geo.nsf.gov/AMS/pubs/careers.html">atm.geo.nsf.gov/AMS/pubs/careers.html</a>
COMET	<a href="http://comet.ucar.edu">comet.ucar.edu</a>
COMET – Meteorological Education	<a href="http://meted.ucar.edu">meted.ucar.edu</a>
DataStreme - University of Wisconsin	<a href="http://www.meteor.wisc.edu/~hopkins/ams/">www.meteor.wisc.edu/~hopkins/ams/</a>
Dictionary of Science (Academic Press)	<a href="http://www.harcourt.com/dictionary">www.harcourt.com/dictionary</a>
GLOBE	<a href="http://www.globe.gov">www.globe.gov</a>
Glossary of Weather	<a href="http://www.weather.com/glossary/wx_glossary_a.html">www.weather.com/glossary/wx_glossary_a.html</a>
How the WeatherWorks	<a href="http://www.weatherworks.com">www.weatherworks.com</a>
Jobs for Meteorologists	<a href="http://bluesky.ecas.ou.edu/~sstrum/wxcomps.html">bluesky.ecas.ou.edu/~sstrum/wxcomps.html</a>
One Sky, Many Voices Project	<a href="http://groundhog.sprl.umich.edu">groundhog.sprl.umich.edu</a>
Oakfield, Wisconsin Tornado	<a href="http://cimss.ssec.wisc.edu/oakfield/cs1.htm">cimss.ssec.wisc.edu/oakfield/cs1.htm</a>
SkyMath: Making Mathematical Connections	<a href="http://www.unidata.ucar.edu/staff/blynds/Skymath.html">www.unidata.ucar.edu/staff/blynds/Skymath.html</a>
Tornadoes: Going Around in Circles	<a href="http://whyfiles.news.wisc.edu/013tornado/">whyfiles.news.wisc.edu/013tornado/</a>

University of Illinois  
Weather and Atmosphere Curriculum  
The Weather World 2010 Project  
Weather (various exhibits)  
USA Today Weather Page  
The Weather Channel  
World Meteorological Organization

[athena.wednet.edu/curric/index.html](http://athena.wednet.edu/curric/index.html)  
[ww2010.atmos.uiuc.edu](http://ww2010.atmos.uiuc.edu)  
[www.learner.org/exhibits/weather](http://www.learner.org/exhibits/weather)  
[www.usatoday.com/weather/](http://www.usatoday.com/weather/)  
[www.weather.com/education/index.html](http://www.weather.com/education/index.html)  
[www.wmo.ch/web/etr/etrp98.html](http://www.wmo.ch/web/etr/etrp98.html)

### **Meteorological and Science Organizations**

American Assoc. for the Advancement of Science  
American Geophysical Union (AGU)  
American Meteorological Society (AMS)  
Local AMS Chapters  
National Weather Association (NWA)  
Local NWA Chapters  
Stormtrack Magazine  
World Meteorological Organization (WMO)

[www.aaas.org](http://www.aaas.org)  
[www.agu.org](http://www.agu.org)  
[www.ametsoc.org/AMS/](http://www.ametsoc.org/AMS/)  
[www.ametsoc.org/AMS/amschaps/index.html](http://www.ametsoc.org/AMS/amschaps/index.html)  
[www.nwas.org](http://www.nwas.org)  
[www.nwas.org/chapters.html](http://www.nwas.org/chapters.html)  
[www.storm-track.com/](http://www.storm-track.com/)  
[www.wmo.ch](http://www.wmo.ch)

### **Meteorology at U.S. Universities**

All Meteorology Colleges and Universities in World  
Arizona State University  
Colorado State University  
Bill Gray's Atlantic Seasonal Hurricane Forecast  
Florida State University  
Georgia Institute of Technology  
Harvard University  
Iowa State University  
Jackson State University  
Lyndon State College  
Massachusetts Institute of Technology  
Northern Illinois University  
Ohio State University - Daily Severe Weather Log  
Oregon State University  
Pennsylvania State University  
Purdue University  
Saint Louis University  
State University of New York at Albany  
Texas A & M University  
University of Alabama at Huntsville  
University of Arizona  
University of California at Los Angeles  
University of Chicago  
University of Georgia  
University of Hawaii  
University of Illinois  
University of Maryland  
University of Miami  
University of Michigan  
University of Oklahoma  
University of Utah  
University of Washington  
University of Wisconsin  
University of Wyoming

[www.ugems.psu.edu/~owens/WWW\\_Virtual\\_Library/metschool.html](http://www.ugems.psu.edu/~owens/WWW_Virtual_Library/metschool.html)  
[saguaro.la.asu.edu/geography](http://saguaro.la.asu.edu/geography)  
[www.cira.colostate.edu](http://www.cira.colostate.edu)  
[typhoon.atmos.colostate.edu/forecasts/](http://typhoon.atmos.colostate.edu/forecasts/)  
[www.met.fsu.edu](http://www.met.fsu.edu)  
[www.eas.gatech.edu/eas.html](http://www.eas.gatech.edu/eas.html)  
[www-as.harvard.edu](http://www-as.harvard.edu)  
[www.public.iastate.edu/~wxintro/atmos.html](http://www.public.iastate.edu/~wxintro/atmos.html)  
[santa.jsums.edu](http://santa.jsums.edu)  
[apollo.lsc.vsc.edu](http://apollo.lsc.vsc.edu)  
[www-eaps.mit.edu](http://www-eaps.mit.edu)  
[taiga.geog.niu.edu/main.html](http://taiga.geog.niu.edu/main.html)  
[asp1.sbs.ohio-state.edu/text/wxascii/sels/WWUS60.KMKC](http://asp1.sbs.ohio-state.edu/text/wxascii/sels/WWUS60.KMKC)  
[www.orst.edu:80/mc/coldep/oceatm/atmsci.htm](http://www.orst.edu:80/mc/coldep/oceatm/atmsci.htm)  
[www.met.psu.edu](http://www.met.psu.edu)  
[wxp.eas.purdue.edu](http://wxp.eas.purdue.edu)  
[www.eas.slu.edu/index.html](http://www.eas.slu.edu/index.html)  
[www.atmos.albany.edu](http://www.atmos.albany.edu)  
[www.met.tamu.edu](http://www.met.tamu.edu)  
[www.gi.alaska.edu](http://www.gi.alaska.edu)  
[www.atmo.arizona.edu](http://www.atmo.arizona.edu)  
[www.atmos.ucla.edu](http://www.atmos.ucla.edu)  
[geosci.uchicago.edu](http://geosci.uchicago.edu)  
[cacimbo.ggy.uga.edu](http://cacimbo.ggy.uga.edu)  
[lumahai.soest.hawaii.edu](http://lumahai.soest.hawaii.edu)  
[atmos.uiuc.edu](http://atmos.uiuc.edu)  
[www.metolab3.umd.edu/meteorology.html](http://www.metolab3.umd.edu/meteorology.html)  
[www.rsmas.miami.edu/msc/index.html](http://www.rsmas.miami.edu/msc/index.html)  
[aoss.engin.umich.edu](http://aoss.engin.umich.edu)  
[rossby.metr.ou.edu/~som](http://rossby.metr.ou.edu/~som)  
[www.met.utah.edu](http://www.met.utah.edu)  
[www.atmos.washington.edu](http://www.atmos.washington.edu)  
[www.meteor.wisc.edu](http://www.meteor.wisc.edu)  
[www-das.uwyo.edu](http://www-das.uwyo.edu)

### **Natural Hazards**

Children's Disaster Safety  
Community Hurricane Preparedness  
Coping With Floods  
Disaster Recovery  
FEMA (see also subjects under Federal)

[www.redcross.org/disaster/masters](http://www.redcross.org/disaster/masters)  
[meted.ucar.edu/hurricane/chp/index.htm](http://meted.ucar.edu/hurricane/chp/index.htm)  
[www.ag.ndsu.nodak.edu/flood/home.htm](http://www.ag.ndsu.nodak.edu/flood/home.htm)  
[www.binomial.com](http://www.binomial.com)  
[www.fema.gov/mit/](http://www.fema.gov/mit/)

Natural Hazards Center - Univ. of Colorado	<a href="http://www.colorado.edu/hazards">www.colorado.edu/hazards</a>
Natural Hazards Centre - Australia	<a href="http://www.es.mq.edu.au/NHRC/">www.es.mq.edu.au/NHRC/</a>
Project Safeside	<a href="http://www.weather.com/safeside">www.weather.com/safeside</a>

### **NOAA-By Organization**

NOAA Research Labs	
Atlantic Oceanographic and Meteorological Lab.	<a href="http://www.aoml.noaa.gov">www.aoml.noaa.gov</a>
Environmental Technology Laboratory	<a href="http://www.etl.noaa.gov">www.etl.noaa.gov</a>
Forecast Systems Laboratory	<a href="http://www.fsl.noaa.gov">www.fsl.noaa.gov</a>
Great Lakes Environmental Research Lab.	<a href="http://www.glerl.noaa.gov">www.glerl.noaa.gov</a>
National Severe Storms Laboratory	<a href="http://www.nssl.noaa.gov">www.nssl.noaa.gov</a>
Pacific Marine Environmental Laboratory	<a href="http://www.pmel.noaa.gov">www.pmel.noaa.gov</a>
Space Environment Laboratory	<a href="http://www.sel.noaa.gov/today.html">www.sel.noaa.gov/today.html</a>
National Environmental Satellite, Data, and Information Service	
National Climatic Data Center	<a href="http://www.ncdc.noaa.gov">www.ncdc.noaa.gov</a>
National Weather Service	<a href="http://www.nws.noaa.gov">www.nws.noaa.gov</a>
Alaska Region	<a href="http://www.alaska.net/~nwsar">www.alaska.net/~nwsar</a>
Central Region	<a href="http://www.crh.noaa.gov">www.crh.noaa.gov</a>
Climate Prediction Center	<a href="http://nic.fb4.noaa.gov">nic.fb4.noaa.gov</a>
Eastern Region	<a href="http://www.rdc.noaa.gov/~ohb/W/WN0000.html">www.rdc.noaa.gov/~ohb/W/WN0000.html</a>
Forecast Offices' Internet Addresses	<a href="http://www.wrh.noaa.gov/wrhq/nwspage.html">www.wrh.noaa.gov/wrhq/nwspage.html</a>
National Operational Hydrologic Research Ctr.	<a href="http://www.nohrsc.nws.gov">www.nohrsc.nws.gov</a>
Southern Region	<a href="http://www.srh.noaa.gov/wfo/html/srwo.html">www.srh.noaa.gov/wfo/html/srwo.html</a>
Storm Prediction Center	<a href="http://www.spc.noaa.gov">www.spc.noaa.gov</a>
Tropical Prediction Center	<a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a>
Western Region	<a href="http://www.wrh.noaa.gov">www.wrh.noaa.gov</a>
NOAA	<a href="http://www.noaa.gov">www.noaa.gov</a>
Publications of the National Weather Service	<a href="http://www.nws.noaa.gov/om/nwspub.htm">www.nws.noaa.gov/om/nwspub.htm</a>

### **NOAA-By Subject**

Current Weather	<a href="http://weather.gov">weather.gov</a>
Data – Official Archive	<a href="http://www.ncdc.noaa.gov">www.ncdc.noaa.gov</a>
Fire Weather	<a href="http://www.spc.noaa.gov/fire/">www.spc.noaa.gov/fire/</a>
Jobs – NOAA (incl. student)	<a href="http://www.rdc.noaa.gov/~hrmo/jobs.htm">www.rdc.noaa.gov/~hrmo/jobs.htm</a>
Jobs – Student	<a href="http://ohrm.doc.gov/jobs/">ohrm.doc.gov/jobs/</a>
	<a href="http://www.rdc.noaa.gov/~hrmo/jobs.htm">www.rdc.noaa.gov/~hrmo/jobs.htm</a>
	<a href="http://www.usajobs.opm.gov/b4.htm">www.usajobs.opm.gov/b4.htm</a>
History of the NWS	<a href="http://www.nws.noaa.gov/pa/special/history/">www.nws.noaa.gov/pa/special/history/</a>
	<a href="http://www.nws.noaa.gov/er/mhx/historyg.htm">www.nws.noaa.gov/er/mhx/historyg.htm</a>
	<a href="http://yoopr.wrlx.noaa.gov/er/rlx/museum/museum.html">yoopr.wrlx.noaa.gov/er/rlx/museum/museum.html</a>
	<a href="http://205.156.54.206/er/gyx/timeline.html">205.156.54.206/er/gyx/timeline.html</a>
Hurricane – Frequently Asked Questions	<a href="http://www.aoml.noaa.gov/hrd/tcfaq/tcfaqHED.html">www.aoml.noaa.gov/hrd/tcfaq/tcfaqHED.html</a>
Hurricane Information	<a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a>
Lightning, Severe Weather (and Wildfire)	<a href="http://www.nwstc.noaa.gov/d.HMD/Lightning/Ltng_home.htm">www.nwstc.noaa.gov/d.HMD/Lightning/Ltng_home.htm</a>
Modernization	<a href="http://www.nws.noaa.gov/modernize">www.nws.noaa.gov/modernize</a>
Natural Hazard Statistics - Summary	<a href="http://www.nws.noaa.gov/om/hazstat.htm">www.nws.noaa.gov/om/hazstat.htm</a>
NOAA Weather Radio	<a href="http://www.nws.noaa.gov/nwr/index.html">www.nws.noaa.gov/nwr/index.html</a>
NWS Publications - Listing	<a href="http://www.nws.noaa.gov/nwspub.html">www.nws.noaa.gov/nwspub.html</a>
Outreach – NWS	<a href="http://www.nws.noaa.gov/om/reachout/">www.nws.noaa.gov/om/reachout/</a>
Owlie Skywarn Weather Book for Kids	<a href="http://www.crh.noaa.gov/mkx/owlie/owlie.htm">www.crh.noaa.gov/mkx/owlie/owlie.htm</a>
Overpasses Are Not Tornado Shelters	<a href="http://www.srh.noaa.gov/oun/papers/overpass.html">www.srh.noaa.gov/oun/papers/overpass.html</a>
Publications of NWS - Listing	<a href="http://www.nws.noaa.gov/nwspub.html">www.nws.noaa.gov/nwspub.html</a>
Radar Sites - University of Oklahoma	<a href="http://wwwcaps.ou.edu/~kbrews/88D.html">wwwcaps.ou.edu/~kbrews/88D.html</a>
Satellites – Weather	<a href="http://140.90.207.25:8080/EBB/ml/education.html">140.90.207.25:8080/EBB/ml/education.html</a>
Severe Weather Sites	<a href="http://www.spc.noaa.gov">www.spc.noaa.gov</a>
	<a href="http://www.nws.noaa.gov/om/svrawar/svrwx.htm">www.nws.noaa.gov/om/svrawar/svrwx.htm</a>
	<a href="http://www.nssl.noaa.gov">www.nssl.noaa.gov</a>
	<a href="http://www.nssl.noaa.gov/hazard/">www.nssl.noaa.gov/hazard/</a>
StormReady	<a href="http://www.nws.noaa.gov/stormready/">www.nws.noaa.gov/stormready/</a>
Thunderstorm Awareness	<a href="http://www.nws.noaa.gov/om/svrawar.htm">www.nws.noaa.gov/om/svrawar.htm</a>

Weather Radio-NOAA  
Winter Weather Awareness

[www.nws.noaa.gov/nwr/index.html](http://www.nws.noaa.gov/nwr/index.html)  
[www.nws.noaa.gov/om/winter/](http://www.nws.noaa.gov/om/winter/)

Auroras  
Bermuda Biological Station for Research  
Downbursts and Microbursts  
    Downbursts  
    Microburst Handbook  
Great Lakes Temperatures  
Jarrel, Texas Tornado Photos  
Satellite Data  
    Colorado State University  
    Naval Meteorology & Oceanography Command  
Sea Surface Temperatures  
Snow and Avalanches  
Today's Space Weather  
Tommy's Weathercam List  
Topographic Maps  
    Fermi Laboratories  
The Tornado Project  
Weatherwise Magazine

### **Others**

[www.geo.mtu.edu/weather/aurora/](http://www.geo.mtu.edu/weather/aurora/)  
[www.bbsr.edu/~norm/whatsup.gif](http://www.bbsr.edu/~norm/whatsup.gif)  
[www-frd.fsl.noaa.gov/mab/microburst/](http://www-frd.fsl.noaa.gov/mab/microburst/)  
[www.nssl.noaa.gov/~doswell/microbursts/Handbook.html](http://www.nssl.noaa.gov/~doswell/microbursts/Handbook.html)  
[www.glerl.noaa.gov/cw/cwdata/lct/glsea.gif](http://www.glerl.noaa.gov/cw/cwdata/lct/glsea.gif)  
[www.pulse.net/storm/Jarrell.htm](http://www.pulse.net/storm/Jarrell.htm)  
[www.cira.colostate.edu/ramm/rmsdsol/main.html](http://www.cira.colostate.edu/ramm/rmsdsol/main.html)  
[www.fnoc.navy.mil](http://www.fnoc.navy.mil)  
[www.rsmas.miami.edu/images.html](http://www.rsmas.miami.edu/images.html)  
[www.csac.org](http://www.csac.org)  
[www.sel.noaa.gov/today.html](http://www.sel.noaa.gov/today.html)  
[www.rt66.com/~ozone/cam.htm](http://www.rt66.com/~ozone/cam.htm)  
[fermi.jhuapl.edu/states/states.html](http://fermi.jhuapl.edu/states/states.html)  
[www.tornadoproject.com](http://www.tornadoproject.com)  
[www.weatherwise.org](http://www.weatherwise.org)

## **7.2. DATA SETS ON ELECTRONIC MEDIA**

---

Large amounts of weather and climate data can be stored on DC-ROM disks. For example, one CD-ROM produced by the National Climatic Data Center (NCDC) holds climate data for over 6000 stations, which is equivalent to 250,000 pages of printed text. Graphics packages and the driving software are included with some disks. Data exports are available so that the user can export the data from the disk to produce individual usable files on diskettes. Articles describing meteorological data storage are the following:

Mass, C.F., H.J. Edmon, H.J. Friedman, N.R. Cheney, and E.E. Recker, 1987: The use of compact discs for the storage of large meteorological and oceanographic datasets. *Bulletin of the American Meteorological Society*, **68**, 1556-1558.

Mass, C.F., 1993: The application of compact discs (CD-ROM) to the atmospheric sciences and related fields: An update. *Bulletin of the American Meteorological Society*, **68**, 1556-1558.

Ross, T.F., 1994: NCDC's CD-ROM products and on-line services. *Preprints of the Third Symposium on Education, Nashville, TN, American Meteorological Society, Boston*, J1-J4.

Towheed, S.S., 1993: NASA space and earth science data on CD-ROM. NSSDC WDC-A-R&S 93-01, National Space Science Data Center, Greenbelt, MD, 29 pp.

### **Government CD-ROMs**

---

•*Climate Data from National Climatic Data Center (NCDC)*  
NCDC Climate Services Branch, Federal Building, 151 Patton Avenue, Asheville NC 28801-5001.  
Phone: (704) 271-4800  
Email: [orders@ncdc.noaa.gov](mailto:orders@ncdc.noaa.gov)  
Web: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

•*International Station Meteorological Climate Summary*  
Contains climatic data for 640 and 5800 secondary stations worldwide. Version 2.0 issued in June 1992.

•*Marine Climatic Atlas of the World*  
Contains global historical marine data. Included are air and sea temperature, wind speed, sea-level pressure, wave height, gale winds, superstructure icing, and wind/current roses.

•*National Climate Information Disk*  
Version 1.0 contains monthly temperature, precipitation, and Palmer drought index data for the 344 climatological divisions of the U.S. covering 1895-1989.

•*Geophysical Data*  
Data base containing worldwide marine geophysical data are available from:  
National Geophysical Data Center, 3253 Broadway, Boulder, CO 80303.  
Phone: (303) 497-6338

•*Joint Education Initiative*  
A set of three CD-ROMs for DOS or Macintosh for \$35 contains lessons, developed by teachers on a range of subjects, including the "Geophysics of North America."  
Bill Johnson, 3433 A.V. Williams Building, University of Maryland, College Park, MD 20742.  
Phone: (301) 405-2324

•*Snowcover Data*  
CD-ROMs containing airborne and satellite snow data for portions of the U.S. and southern Canada for 1990 and 1991 are at:

National Operational Hydrologic Remote Sensing Center,  
Office of Hydrology, National Weather Service, 6301 34th  
Avenue South, Room 112, Minneapolis, MN 55450-2985.  
Phone: (612) 725-3258

68 North Shore Drive  
Seaford, DE 19973

## Commercial CD-ROMs

---

### •CLEARVUE/eav

- The El Niño*, \$35.00
- Everything Weather*, \$70.00
- Learning About Weather & Climate*, \$75.00
- Sky Works*, \$40.00.
- Team Xtreme: Operation Weather Disasters*, \$55.00
- Understanding Weather & Climate*, \$60.00
- Weather: Air In Action*, \$50.00.
- Weather Science Explorer*, \$60.00.
- The World's Weather*, \$90.00.

### •Everything Weather

1997. Climate maps, tracking tools, dramatic videos.  
ISBN 6-30442210-5. \$39.99.  
The Weather Channel, 300 Interstate North Parkway,  
Atlanta, GA 30339.  
Web: [www.weather.com](http://www.weather.com)

### •Water Vapor Weather Satellite Imagery

Three volume VHS or CD-ROM of: I – El Nino 1997, II –  
Nor'Easters 1998, III – Hurricanes 1998. \$19.95 each or  
Space/Earth Science Technologies

### •Weather and Climate

Interactive CD-ROM for grades 5-9. Includes teacher's  
guide. Mac and Windows compatible. \$49.95 (or 5 for  
\$199.95)  
Discovery Channel School.  
Phone: 1-888-892-3484  
Web: Click on "school" at [discovery.com](http://discovery.com)

### •World climate

Global climatic change data.  
Chadwyck-Healey, Inc., 1101 King Street, Alexandria, VA  
22314.  
Phone: (800) 752-0515  
(703) 683-4890

### •World climate

Climatic data for 2000 stations worldwide for \$295.  
WeatherDisc Associates, Inc., 4584 N.E. 89th, Seattle,  
WA 98115.  
Phone: (206) 524-4314  
or  
Dr. Cliff Mass, Dept. of Atmospheric Science (AK40),  
University of Washington, Seattle, WA 98195.  
Phone: (206) 685-0910

## 7.3. INSTRUCTIONAL SOFTWARE

---

Selected updated address lists of software suppliers is in  
the annual *Science Education Suppliers Supplement* to *The  
Science Teacher* and other publications of the NSTA.

National Science Teachers Association, 1742 Connecticut  
Ave., N.W., Washington, DC 20209-1171.

### •Any Weather

1998. RCA Records, ISBN 6-305172331. \$16.98.

### •Climate and Weather/Our Town Data Base

Grades 4-12.  
Sunburst Communications, 101 Castleton Street,  
Pleasantville, NY 10570.

### •Discovery Works Weather and Climate

1997. SIM Publishing, ISBN 6-30429502-2. \$24.99.

### •Earth Science

Videodisk, \$395.00, Grades 4 to 12.  
Optical Data, 30 Technology Drive, Warren, NJ 07060.

### •Everything Weather

1997. Climate maps, tracking tools, dramatic videos.  
ISBN 6-30442210-5. \$39.99.  
The Weather Channel, 300 Interstate North Parkway,  
Atlanta, GA 30339.  
Web: [www.weather.com](http://www.weather.com)

### •Five Star Forecast

Disk, manual, and workbook, \$59. Part of MECC's  
Science Inquiry Collection including 'Weather maker' and  
'Forecaster.'

MECC-Minnesota Education Computing Corporation, 3490  
Lexington, Avenue North, St. Paul, MN 55126.

### •Forecasting the Weather

Double-sided disk, backup, worksheets, and manual,  
\$59.95, Grades 6 to 9.  
MCE Division of Lawrence Productions, MCE, Inc., P.O.  
Box 458, Galesburg, MI 49053.

### •Inclement Weather

1998. World Domination Records, ISBN 6-305044708.  
\$15.98.

### •More Weather

1998, ISBN 6-304794851. \$17.98.

### •Weather

1997. Two disks, backup, manual, \$49.95, Grades 3 - 8.  
-Forecasting the weather.  
-Temperature, humidity, air pressure, and wind.  
-The weather station.  
Orange Cherry, Box 390, Pound Ridge, NJ 10576-0390.

### •The Weather

1997. Book and CD-ROM. Smithmark Publishing, ISBN  
0-76519109-1. \$14.98.

### •Weather

1998. World Book Multimedia, ISBN 0-716672367.  
\$14.95.

- Weather: A View From Space, Vol. 1: El Nino 1997*  
1999. Space/Earth Science Technologies, www.sest.com, \$19.95
- Weather Academy*  
Two disks, backup, student workbook and manual, and additional materials, \$99, Grades 5 to 8.  
Focus Media, 839 Stewart Ave., Garden City, NY 11530.
- Weather In Action*  
Two disks, backup, and manual, \$395.00, Grades 4 to 9.  
National Geographic Society, Educational Services, 17th and M Streets, N.W., Washington, DC 20036.  
Phone: (800) 368-2728
- The Weather Tracker's Kit: Explore the Changing Forces of Nature*  
1995. Book and CD-ROM. Running Press, ISBN 1-56138641-3. \$29.95.