

## Annotated list of useful fire and weather websites

<b>Weather and upper air soundings</b>	
Current weather, forecasts, radar, satellite, alerts, air quality, deterministic (RDPS, GDPS) and ensemble forecasts, monthly and seasonal forecasts, snow depth, upper air analyses, FireWork (smoke prediction), aviation conditions, etc.), as well as past weather archives and GRIB2 numerical model data.	<a href="http://weather.gc.ca/">http://weather.gc.ca/</a>
University of Wyoming Atmospheric Soundings. View tephigrams and raw data collected from upper air soundings worldwide.	<a href="http://weather.uwyo.edu/upperair/sounding.html">weather.uwyo.edu/upperair/sounding.html</a>
Canadian Meteorological Centre forecast bulletins (text)	<a href="http://kamala.cod.edu/offis/CWAO/fxcn01.chunk.html">http://kamala.cod.edu/offis/CWAO/fxcn01.chunk.html</a>
Bulletin focusing on prairies and arctic	<a href="http://kamala.cod.edu/Canada/latest_focn45.CWWG.html">http://kamala.cod.edu/Canada/latest_focn45.CWWG.html</a>
<b>Weather and upper air sounding forecasts</b>	
Skew T sounding forecasts (for a limited number of layers) for select global locations	<a href="http://www.weatheronline.co.uk/cgi-bin/expertcharts?LANG=en&amp;MENU=0000000000&amp;CONT=namk&amp;MODELL=modtemps&amp;MODELLTYP=4&amp;BASE=-&amp;VAR=pslv&amp;HH=12&amp;ZOOM=0&amp;ARCHIV=0&amp;RES=0&amp;WMO=71123&amp;PERIOD">http://www.weatheronline.co.uk/cgi-bin/expertcharts?LANG=en&amp;MENU=0000000000&amp;CONT=namk&amp;MODELL=modtemps&amp;MODELLTYP=4&amp;BASE=-&amp;VAR=pslv&amp;HH=12&amp;ZOOM=0&amp;ARCHIV=0&amp;RES=0&amp;WMO=71123&amp;PERIOD</a>
Variety of upper air forecast products for the contiguous US and part of Canada	<a href="http://www.pivotalweather.com/model.php">http://www.pivotalweather.com/model.php</a>
Forecasted windgrams for western Canada Only	<a href="http://www.canadarasp.com/windgrams/?region=9&amp;location=9&amp;plotType=0">http://www.canadarasp.com/windgrams/?region=9&amp;location=9&amp;plotType=0</a>
<b>Satellites</b>	
SLIDER: Satellite Loop Interactive Data Explorer in Real-time for GOES-16 and Himawari-8 satellites.	<a href="http://rammb-slider.cira.colostate.edu/?sat=goes-16&amp;sec=full_disk&amp;x=10848&amp;y=10848&amp;z=0&amp;im=12&amp;ts=1&amp;st=0&amp;et=0&amp;speed=130&amp;motion=loop&amp;map=1&amp;lat=0&amp;p%5B0%5D=16&amp;opacity%5B0%5D=1&amp;hidden%5B0%5D=0&amp;pause=0&amp;slider=-1&amp;hide_controls=0&amp;mouse_draw=0&amp;s=rammb-slider">http://rammb-slider.cira.colostate.edu/?sat=goes-16&amp;sec=full_disk&amp;x=10848&amp;y=10848&amp;z=0&amp;im=12&amp;ts=1&amp;st=0&amp;et=0&amp;speed=130&amp;motion=loop&amp;map=1&amp;lat=0&amp;p%5B0%5D=16&amp;opacity%5B0%5D=1&amp;hidden%5B0%5D=0&amp;pause=0&amp;slider=-1&amp;hide_controls=0&amp;mouse_draw=0&amp;s=rammb-slider</a>
GOES (geostationary satellite) Loops. There are numerous satellite loops available on this website. Real-time GOES loops (Band 2) can be used to view wildfire activity. Dark colours are cool, light colours are warm, bright white is hot (likely a hotspot/wildfire). Note: The new interactive web application, <u>SLIDER</u> has every pixel of real-time GOES-16 and Himawari-8 imagery.	<a href="http://rammb.cira.colostate.edu/dev/lindsey/loops/">http://rammb.cira.colostate.edu/dev/lindsey/loops/</a>
Real-time GOES Satellite imagery	<a href="http://www.aos.wisc.edu/weather/wx_obs/Satellite.html">http://www.aos.wisc.edu/weather/wx_obs/Satellite.html</a>



Worldview. Interactively browse (and download) global, full-resolution satellite imagery. Most of the 400+ products are updated within three hours of observation, supporting time-critical application areas such as wildfire management, air quality measurements, and flood monitoring.	<a href="https://worldview.earthdata.nasa.gov/">https://worldview.earthdata.nasa.gov/</a>
MODIS land (temperature, albedo, LAI, ET, etc.) products from ORNL. Provides either a series of GeoTIFFs or a nice time series for points.	<a href="http://daac.ornl.gov/cgi-bin/MODIS/GLBVIZ_1_Glb/modis_subset_order_global_col5.pl">http://daac.ornl.gov/cgi-bin/MODIS/GLBVIZ_1_Glb/modis_subset_order_global_col5.pl</a>
Subsets images for browsing the visual data easily and rapidly (best for looking for smoke plumes). Option to download subset images.	<a href="https://earthdata.nasa.gov/data/near-real-time-data/rapid-response/modis-subsets">https://earthdata.nasa.gov/data/near-real-time-data/rapid-response/modis-subsets</a>
The FIRMS database for active and archived hotspots and fire radiative energy (MODIS and VIIRS).	<a href="https://earthdata.nasa.gov/data/near-real-time-data/firms/active-fire-data">https://earthdata.nasa.gov/data/near-real-time-data/firms/active-fire-data</a>
MISR archived dataset of satellite-derived smoke plume heights. Click on MISR Plume Height Project or MISR Plume Height Project 2 on the left menu.	<a href="http://www-misr.jpl.nasa.gov/getData/accessData/">http://www-misr.jpl.nasa.gov/getData/accessData/</a>
College of DuPage Satellite and Radar page	<a href="https://weather.cod.edu/satrad/exper/">https://weather.cod.edu/satrad/exper/</a>
<b>Google Earth and fire data</b>	
Click on the AFM KML Bundle and it will launch Google Earth. You can select what satellites you wish to use.	<a href="https://fsapps.nwcg.gov/afm/googleearth.php?sensor=modis&amp;extent=canada">https://fsapps.nwcg.gov/afm/googleearth.php?sensor=modis&amp;extent=canada</a>
<b>Composite tools – good for daily, monthly, seasonal or annual analyses</b>	
Plot daily composites (averages) of the mean or anomalies (mean - total mean) of variables from the NCEP/NCAR Reanalysis and other datasets. Long term means (climatologies) are based on 1981-2010. Data is available from Jan 1948 to Aug 29, 2017 for most variables.	<a href="http://www.esrl.noaa.gov/psd/data/composites/day/">http://www.esrl.noaa.gov/psd/data/composites/day/</a>
Plot seasonal composites (averages) of the mean or anomalies (mean - total mean) of variables from the NCEP reanalysis and other datasets. NCEP data is available from Jan 1948 to Jul 2017 (other datasets have different time ranges). Note the climatology used for the anomaly and long term mean plots is currently 1981-2010 to match the new climate normal time period.	<a href="http://www.esrl.noaa.gov/psd/cgi-bin/data/composites/printpage.pl">http://www.esrl.noaa.gov/psd/cgi-bin/data/composites/printpage.pl</a>
Analyse climate data	<a href="https://climexp.knmi.nl/start.cgi?id=someone@somewhere">https://climexp.knmi.nl/start.cgi?id=someone@somewhere</a>
Model forecast animations.	<a href="http://meteocentre.com/numerical-weather-prediction/map-animation.php?mod=gfs&amp;run=00&amp;stn=PNM&amp;mode=latest&amp;map=na&amp;lang=en">http://meteocentre.com/numerical-weather-prediction/map-animation.php?mod=gfs&amp;run=00&amp;stn=PNM&amp;mode=latest&amp;map=na&amp;lang=en</a>
Global maps from GHCN v3 data. Create surface temperature anomaly or trend maps.	<a href="https://data.giss.nasa.gov/gistemp/maps/">https://data.giss.nasa.gov/gistemp/maps/</a>
Climate Normals – Visualize monthly average climate for a location in the contiguous USA	<a href="https://climatetoolbox.org/tool/historical-climate-normals">https://climatetoolbox.org/tool/historical-climate-normals</a>
<b>Radar</b>	
Canadian Historical Weather Radar. Useful for tracking storms and	<a href="http://climate.weather.gc.ca/radar/in">http://climate.weather.gc.ca/radar/in</a>

precipitation. Also has links to how to use the product and information about radar images.	<a href="#">dex_e.html</a>
Radar coverage of the US and southern Canada.	<a href="http://www.intellicast.com/National/Radar/Current.aspx?location=default&amp;region=MSY">http://www.intellicast.com/National/Radar/Current.aspx?location=default&amp;region=MSY</a>
USA radar composite archives. Useful for tracking storms and precipitation	<a href="http://www2.mmm.ucar.edu/imagearchive/">http://www2.mmm.ucar.edu/imagearchive/</a>
<b>Jet stream analysis</b>	
Build animations of archived jet stream analyses.	<a href="http://squall.sfsu.edu/scripts/jet_big_archloop.html">http://squall.sfsu.edu/scripts/jet_big_archloop.html</a>
<b>Real-time Lightning</b>	
Live lightning maps.	<a href="http://en.blitzortung.org/live_lightning_maps.php">http://en.blitzortung.org/live_lightning_maps.php</a>
<b>Need a quick forecast for a remote area?</b>	
Includes an option to output data formatted as a Prometheus weather stream.	<a href="http://spotwx.com/">http://spotwx.com/</a>
<b>Model forecast visualizations</b>	
View interactive maps of forecasted (ECMWF or GFS) maps of wind, cloud, temperature, precipitation, pressure, etc.	<a href="https://www.windy.com/">https://www.windy.com/</a>
	<a href="https://earth.nullschool.net">https://earth.nullschool.net</a>
	<a href="https://earth.nullschool.net/about.html">https://earth.nullschool.net/about.html</a>
<b>Fire weather, behaviour, and management sites</b>	
Daily, weekly, and monthly (with seasonal trends) wildfire potential outlooks.	<a href="https://www.predictiveservices.nifc.gov/">https://www.predictiveservices.nifc.gov/</a>
North American Seasonal Fire Assessment and Outlook (August, September and October 2017)	<a href="https://www.predictiveservices.nifc.gov/outlooks/NA_Outlook.pdf">https://www.predictiveservices.nifc.gov/outlooks/NA_Outlook.pdf</a>
Canadian Wildland Fire Information System creates daily fire weather and fire behavior maps year-round and hot spot maps throughout the forest fire season, generally between May and September.	<a href="http://cwfis.cfs.nrcan.gc.ca/home">http://cwfis.cfs.nrcan.gc.ca/home</a>
Global Fire EWS 10 day and monthly fire weather forecasts	<a href="http://canadawildfire.ualberta.ca/gfews/">http://canadawildfire.ualberta.ca/gfews/</a>
Canadian (CIFFC) annual reports of fire activity and current situation.	<a href="http://www.cifc.ca/">http://www.cifc.ca/</a>
Yukon wildfire status maps and general information.	<a href="http://www.community.gov.yk.ca/protectiveservices/fire-maps.html">http://www.community.gov.yk.ca/protectiveservices/fire-maps.html</a>
British Columbia wildfire status maps, information, fire bans/restrictions, fire danger, statistics.	<a href="http://www2.gov.bc.ca/gov/content/safety/wildfire-status">http://www2.gov.bc.ca/gov/content/safety/wildfire-status</a>
Northwest Territories wildfire status maps, smoke reports, and fire bans.	<a href="http://www.enr.gov.nt.ca/en/service/s/fire-update">http://www.enr.gov.nt.ca/en/service/s/fire-update</a>
Alberta wildfire status maps, fire advisories/restrictions/bans, fire behaviour, situations reports, data and statistics.	<a href="http://wildfire.alberta.ca/wildfire-status/default.aspx">http://wildfire.alberta.ca/wildfire-status/default.aspx</a>
Saskatchewan wildfire status maps, fire danger, fire bans, smoke and air quality.	<a href="http://www.saskatchewan.ca/fire#utm_campaign=q2_2015&amp;utm_medium=short&amp;utm_source=%2Ffire">http://www.saskatchewan.ca/fire#utm_campaign=q2_2015&amp;utm_medium=short&amp;utm_source=%2Ffire</a>



Manitoba wildfire status maps, situation reports, general information.	<a href="https://www.gov.mb.ca/wildfire/index.html">https://www.gov.mb.ca/wildfire/index.html</a>
Ontario wildfire status maps.	<a href="https://www.ontario.ca/page/forest-fires">https://www.ontario.ca/page/forest-fires</a>
Quebec wildfire status maps, and fire danger.	<a href="https://www.sopfeu.qc.ca/en/report-on-fire-situation/maps">https://www.sopfeu.qc.ca/en/report-on-fire-situation/maps</a>
New Brunswick Wildfire status maps and information.	<a href="http://www.gnb.ca/Public/Fire-Feu/">http://www.gnb.ca/Public/Fire-Feu/</a>
Nova Scotia fire danger.	<a href="https://novascotia.ca/natr/forestprotection/wildfire/">https://novascotia.ca/natr/forestprotection/wildfire/</a>
Prince Edward Island fire weather.	<a href="https://www.princeedwardisland.ca/en/service/check-fire-weather-index-online">https://www.princeedwardisland.ca/en/service/check-fire-weather-index-online</a>
Newfoundland and Labrador wildfire status maps, fire hazards maps.	<a href="http://www.faa.gov.nl.ca/forestry/forestfires/">http://www.faa.gov.nl.ca/forestry/forestfires/</a>
<b>Weather map archives</b>	
Historical upper air maps	<a href="http://archive.atmos.colostate.edu">http://archive.atmos.colostate.edu</a>
Historical upper air maps	<a href="http://www.wpc.ncep.noaa.gov/archives/web_pages/sfc/sfc_archive.php">http://www.wpc.ncep.noaa.gov/archives/web_pages/sfc/sfc_archive.php</a>
Archived surface weather maps back to 1899	<a href="http://www.lib.noaa.gov/collections/imgdocmaps/synoptic_weather_maps_northern_hemisphere.html">http://www.lib.noaa.gov/collections/imgdocmaps/synoptic_weather_maps_northern_hemisphere.html</a>
<b>Online courses of interest</b>	
Utah State University's Wildland Fire Management and Planning course and schedule.	<a href="http://ocw.usu.edu/Forest_Range_and_Wildlife_Sciences/Wildland_Fire_Management_and_Planning/index.html">http://ocw.usu.edu/Forest_Range_and_Wildlife_Sciences/Wildland_Fire_Management_and_Planning/index.html</a> <a href="http://ocw.usu.edu/Forest_Range_and_Wildlife_Sciences/Wildland_Fire_Management_and_Planning/Schedule.html">http://ocw.usu.edu/Forest_Range_and_Wildlife_Sciences/Wildland_Fire_Management_and_Planning/Schedule.html</a>
MetEd is a free collection of hundreds of training resources intended for the geoscience community.	<a href="https://www.meted.ucar.edu/training_detail.php">https://www.meted.ucar.edu/training_detail.php</a>
<b>Other</b>	
EL Nino update	<a href="http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/">http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/</a>
Archives	<a href="http://dd.weather.gc.ca/">http://dd.weather.gc.ca/</a>
Global precipitation data set	<a href="http://www.gloh2o.org/">http://www.gloh2o.org/</a>