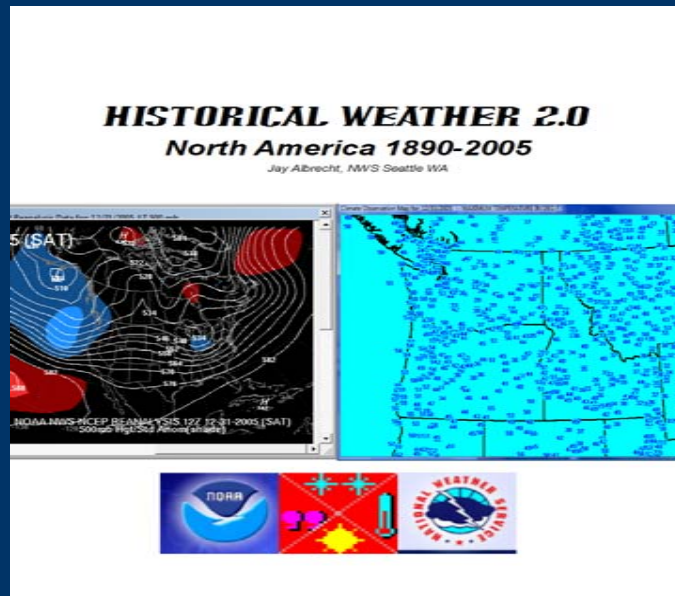


Historical Weather Viewer 2.0:

*-a Major Update to a Computer Application that
Combines Climate Observations with NCEP
Reanalysis Data*

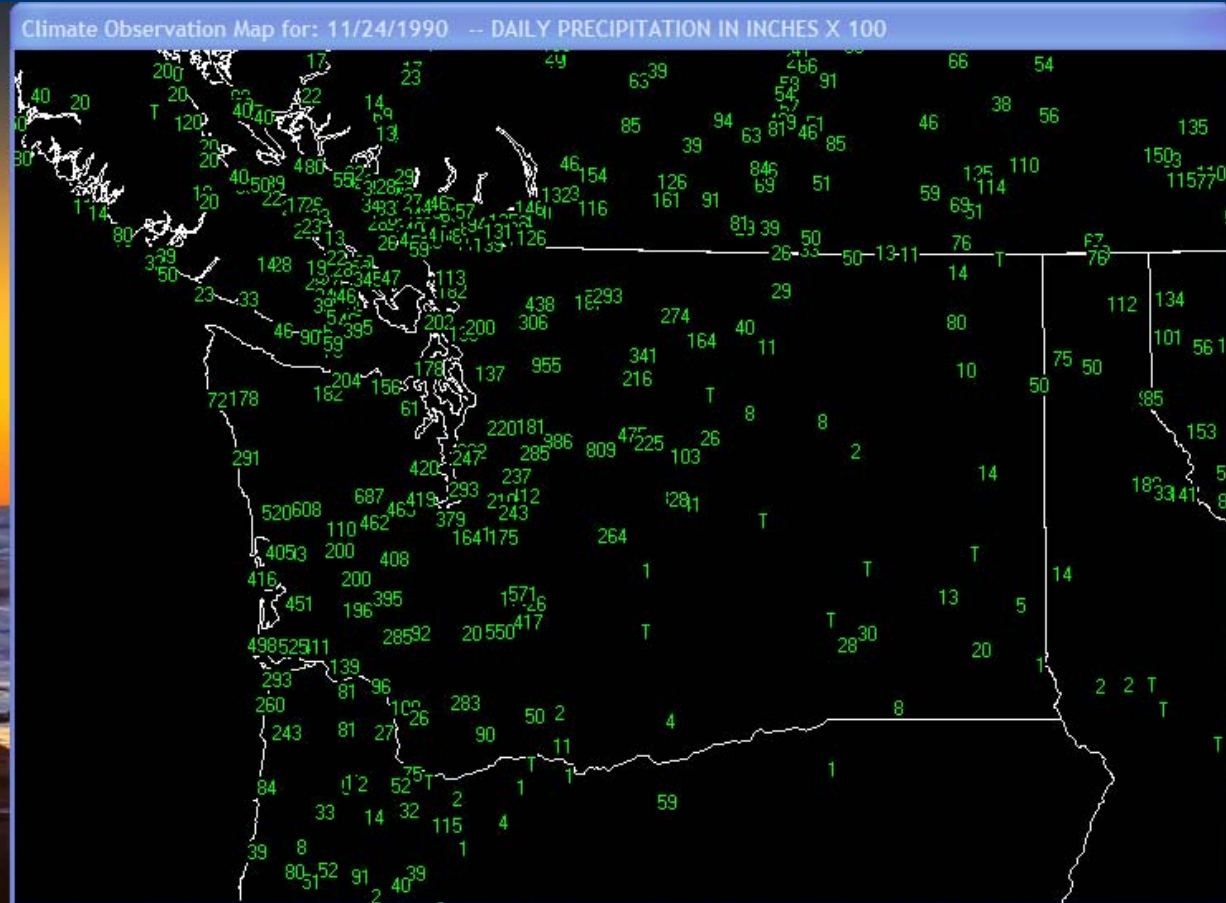
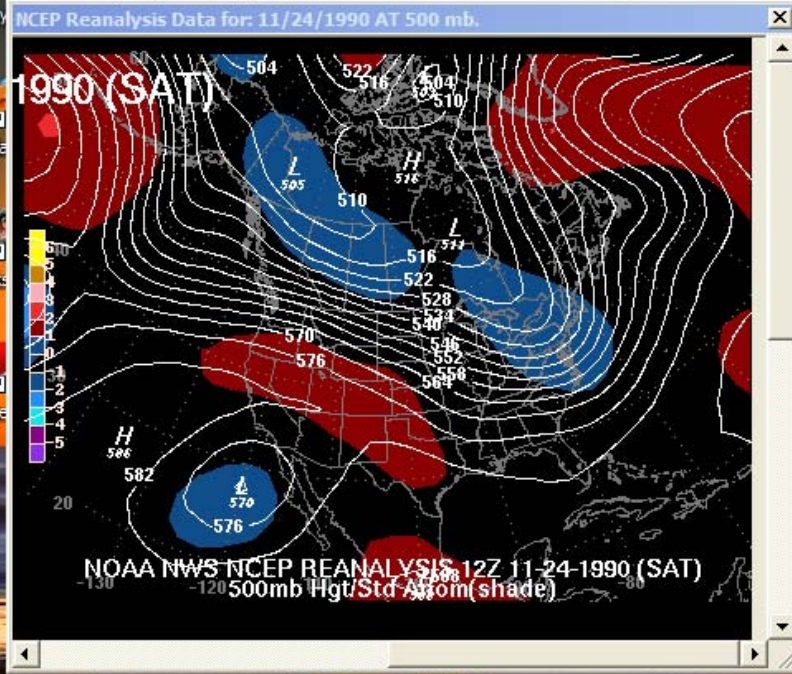


*Jay A. Albrecht
Senior Forecaster*

**National Weather Service
Forecast Office, Seattle
Washington**

Historical Weather Viewer 2.0

- ***Surface climate database covers***: 01/01/1890-12/31/2005 for all of North America. Many more U.S. locations available than in the previous version of the program.
 - ***Available upper-air chart data***: 12z NCEP reanalysis for 250-, 500-, 850-, and 1000-mb isobaric surfaces for the period 1948 through 2005.
 - ***Climate observations include***: daily maximum and minimum temperature (deg F), daily precipitation (hundredths of an inch), daily snowfall (tenths of an inch), and snow on ground (whole inches).
 - ***Program***: intuitive interface and navigation features; dynamic zoom, click on observation for attributes and 31-day time series, Daily Weather Map download from NOAA
-
-



Station And Climate Observation Details

HistWx ID: WA0068 COOP ID: 451939 NWS/FAA ID: CPHW1

CUSHMAN POWERHOUSE 2 WA

Latitude: 472214 Longitude: 1230936 Elev (FT): 00021

DATE	MAX T	MIN T	PCPN	SNOW	SN G
19901115	48	40	0.47	0.0	0
19901116	51	39	0.02	0.0	0
19901117	51	46	0.17	0.0	0
19901118	50	33	0.01	0.0	0
19901119	44	38	0.44	0.0	0
19901120	45	31	0.00	0.0	0
19901121	45	36	0.90	0.0	0
19901122	55	36	1.61	0.0	0
19901123	54	52	2.06	0.0	0
19901124	56	46	6.87	0.0	0
19901125	55	38	0.04	0.0	0
19901126	55	31	0.00	0.0	0
19901127	48	34	0.34	0.0	0
19901128	47	35	0.08	0.0	0

Historical Weather Viewer

Regions: United States Canada Browser Path About

Map Features:

Map Color: [dropdown] Map Line Width: [slider]

Text Data Color: [dropdown] Text Data Font: [Size: large, medium, small] [Attribute: Bold, Italic]

Surface Climate Parameter:

Max T Snow Observation
 Min T SN On Grnd Stn Num
 Pcpn Coop ID Index Num

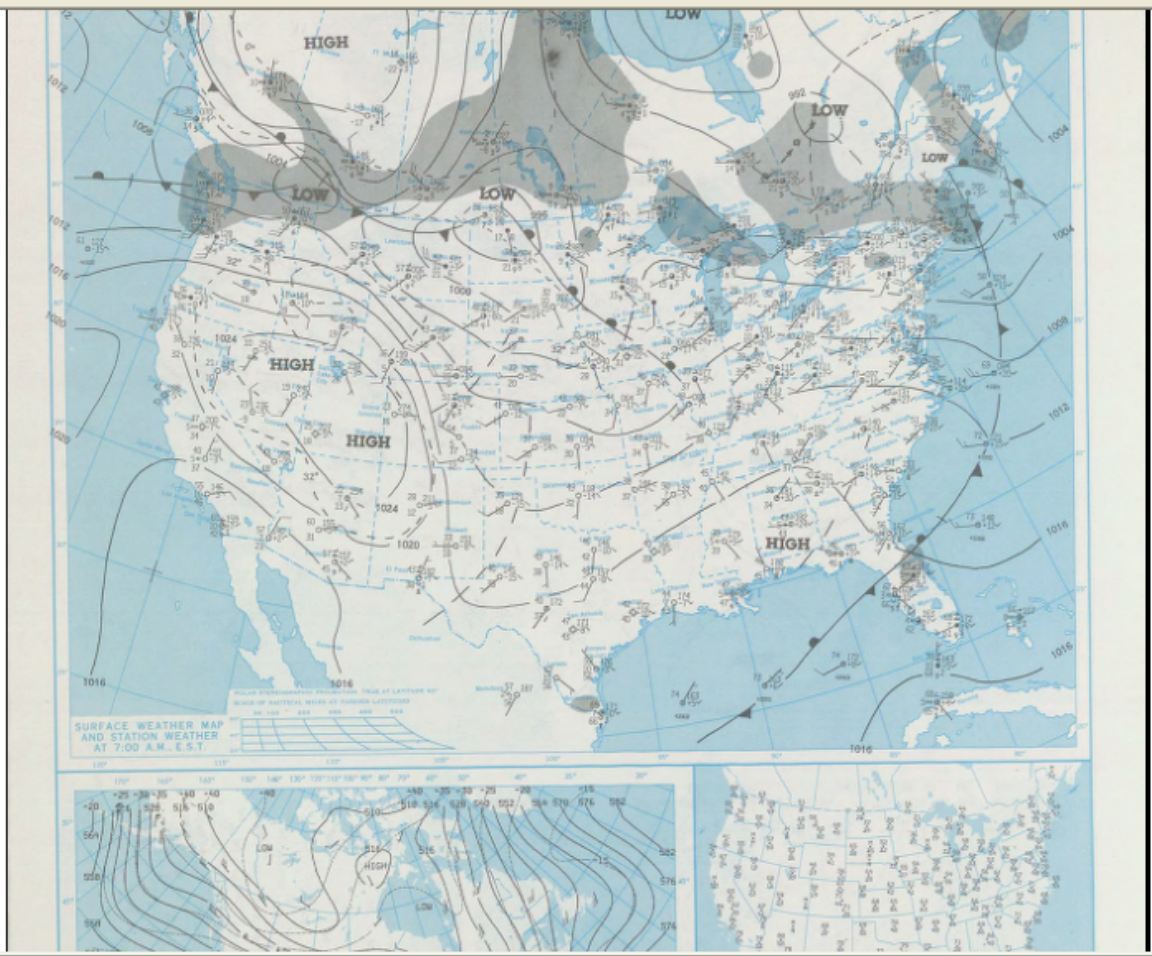
Historical Chart Level:

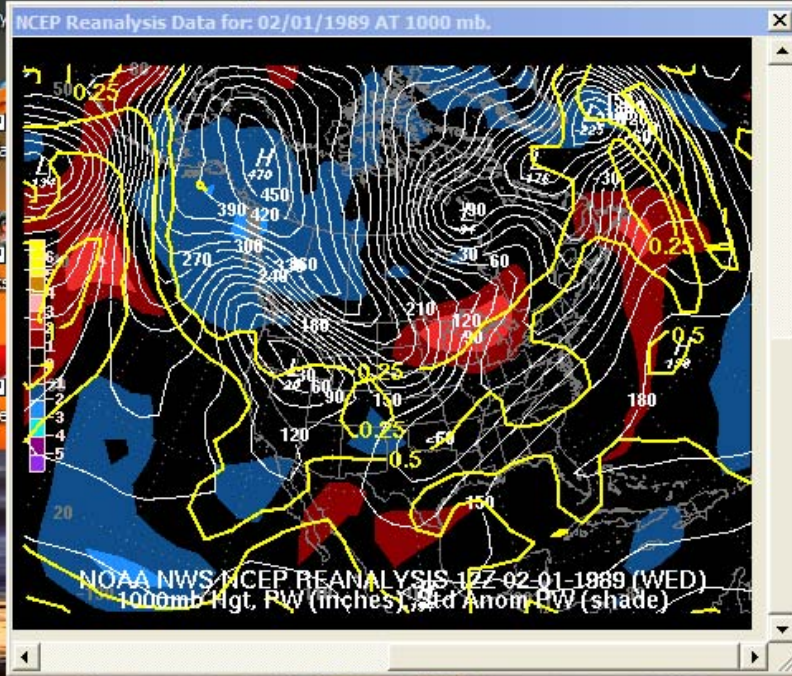
250 mb
 500 mb
 850 mb
 1000 mb

Daily Weather Map from NOAA

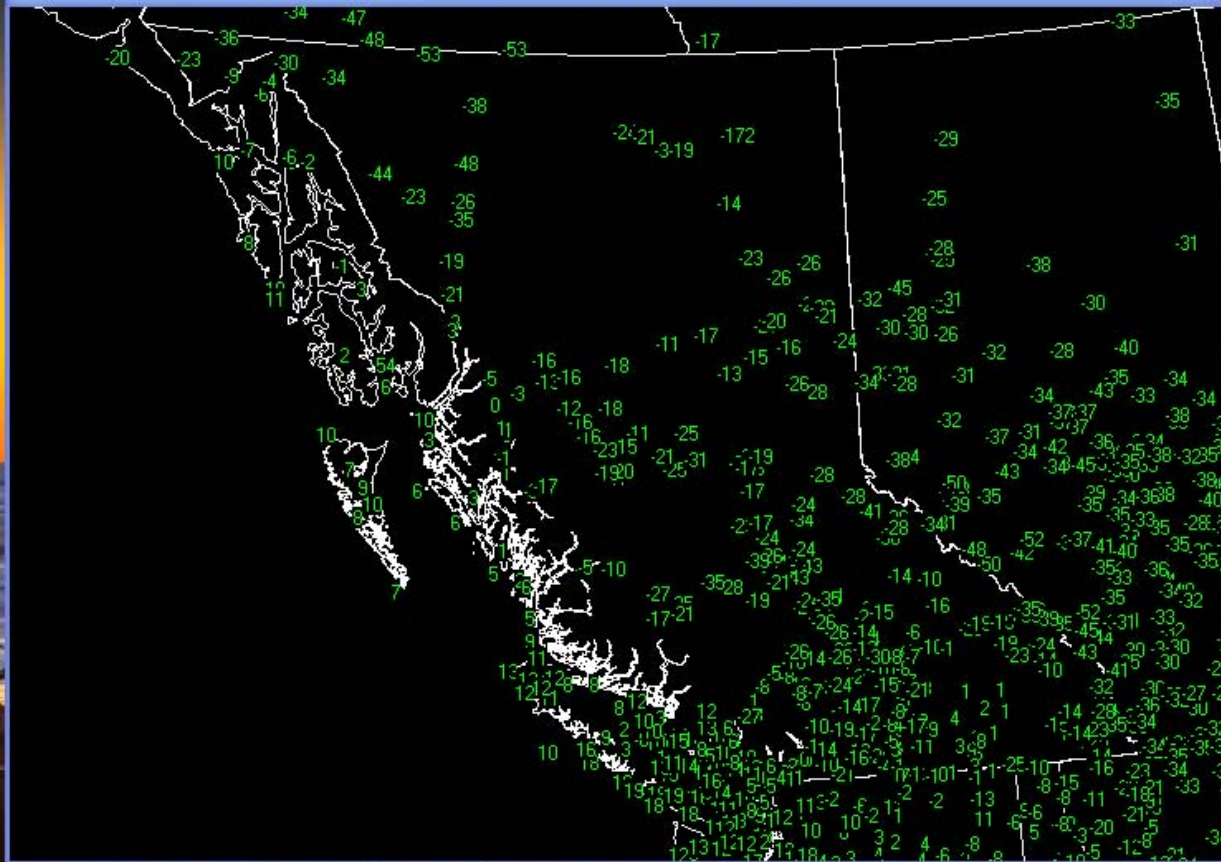
Date To Display Weather Charts and Associated Climate Information:

YR MO WK DA < 11/24/1990 > DA WK MO YR REFRESH EXIT





Climate Observation Map for: 02/01/1989 -- MINIMUM TEMPERATURE IN DEG F



Station And Climate Observation Details

HistWx ID: BC1373 COOP ID: 2101081 NWS/FAA ID:

SWIFT RIVER BC

Latitude: 600000 Longitude: 1311048 Elev (FT): 02923

DATE	MAX T	MIN T	PCPN	SNOW	SN G
19890126	37	-1	0.00	0.0	
19890127	28	9	0.00	0.0	
19890128	30	18	0.00	0.0	
19890129		-21	0.00	0.0	
19890130			0.00	0.0	
19890131	9		0.00	0.0	27
19890201	-21	-53	0.00	0.0	
19890202	-7	-53	0.00	0.0	
19890203		-48			
19890204					
19890205	5		0.00	0.0	
19890206	14	-46	0.00	0.0	28
19890207	10	-30	0.00	0.0	
19890208	10	-26	0.00	0.0	

Historical Weather Viewer

Regions: United States Canada Browser Path About

Map Features:

Map Color: [Dropdown] Map Line Width: [Slider]

Text Data Color: [Green] Text Data Font: [Size: large, medium, small] [Attribute: Bold, Italic]

Surface Climate Parameter:

Max T Snow Observation
 Min T SN On Gnd Stn Num
 Pcpn Coop ID Index Num

Historical Chart Level:

250 mb
 500 mb
 850 mb
 1000 mb

Daily Weather Map from NOAA

Date To Display Weather Charts and Associated Climate Information:

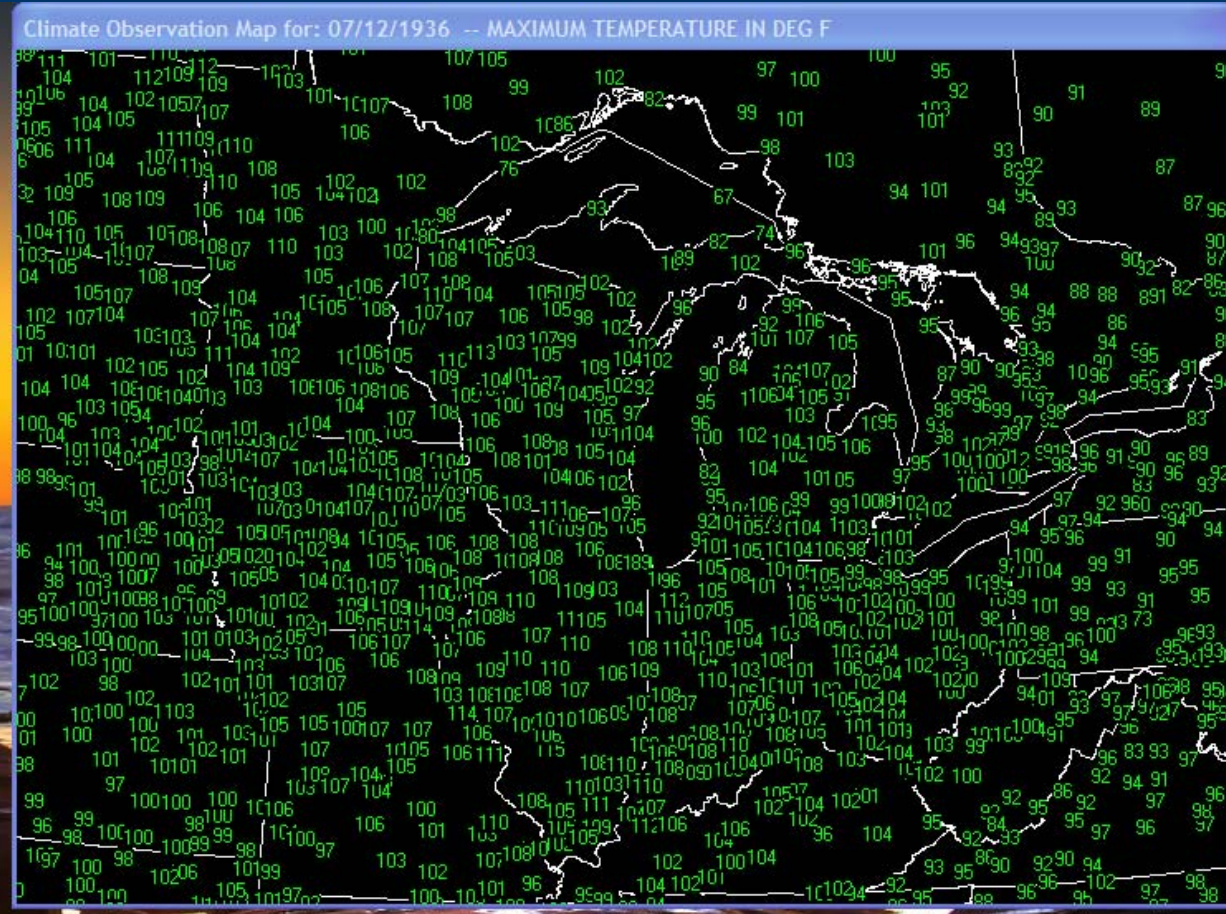
YR MO WK DA < 02/01/1989 > DA WK MO YR REFRESH EXIT

Recycle Bin MiscInstalled AusLogics Disk Defrag My Computer

Mozilla Firefox Internet Explorer PC Study Bible Open Office C++ PythonGUI

Links 2003 Google Earth Virtual Earth HistoricalWX BorlandC++ Devguide

Adobe Reader 8 McAfee Secur... Music



Station And Climate Observation Details

HistWx ID: W10035 COOP ID: 471078 NWS/FAA ID: BROW3

BROHEAD WI

Latitude: 423705 Longitude: 0892310 Elev (FT): 00790

DATE	MAX T	MIN T	PCPN	SNOW	SN G
19360703	86	54	T	0.0	
19360704	87	55	0.00	0.0	
19360705	90	64	T	0.0	
19360706	102	61	0.00	0.0	
19360707	105	66	0.00	0.0	
19360708	104	67	0.00	0.0	
19360709	101	68	0.00	0.0	
19360710	106	70	0.00	0.0	
19360711	108	70	0.00	0.0	
19360712	111	72	0.00	0.0	
19360713	111	72	0.00	0.0	
19360714	111	73	0.00	0.0	
19360715	100	70	0.00	0.0	
19360716	100	63	0.00	0.0	
19360717	103	65	0.00	0.0	
19360718	95	68	0.23	0.0	
19360719	90	63	1.00	0.0	
19360720	84	55	0.00	0.0	
19360721	87	50	0.00	0.0	
19360722	94	62	0.00	0.0	
19360723	90	65	0.23	0.0	
19360724	86	59	T	0.0	

Close

Historical Weather Viewer

Regions: United States Canada Browser Path About

Map Features:

Map Color: [Dropdown] Map Line Width: [Slider]

Text Data Color: [Dropdown] Text Data Font: [Size: large, medium, small] [Attribute: Bold, Italic]

Background Color: [Dropdown]

Surface Climate Parameter:

Max T Snow Observation
 Min T SN On Grnd Stn Num
 Pcpn Coop ID Index Num

Historical Chart Level:

250 mb
 500 mb
 850 mb
 1000 mb

Daily Weather Map from NOAA

Date To Display Weather Charts and Associated Climate Information:

YR MO WK DA < 07/12/1936 > DA WK MO YR REFRESH EXIT

APPLICATION DATABASE

- ***Data coverage:*** All of North America including: Contiguous United States, Canada, Alaska, Puerto Rico and Virgin Islands, Mexico, portions of the Caribbean. (Hawaii is not included)
 - ***Daily Climate Observations:*** derived from digital data supplied by the WMO, Utah State University, Environment Canada, and NOAA Regional Climate Centers.
 - ***Climate observations available for all available sites in coverage area.*** Previous version of the program only contained a subset based on limited data provide by NOAA Regional Climate Centers through xmACIS.
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Potential Application Uses:

- ***Operational Forecast Preparation***: compare and contrast upcoming weather patterns with historical events.
 - ***Case Study Preparation***: Determine favored upper-air patterns for heavy precipitation and temperature extremes. Study mesoscale variations within a forecast area in varying upper-air patterns. There are many possibilities.
 - ***Training***: e.g., new forecasters or forecasters moving from one location to another
 - ***Emergency Managers***: use application to compare past events with upcoming events when forecasters give reference dates in forecast discussions or watch/warning products.
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Hardware Requirements

- **Microsoft Windows XP operating system or later**
 - **6.0 GB Storage** (can be compressed to 4.0 GB on a NTFS formatted drive.)
 - **NOINSTALL application**: it can be “installed” anywhere (portable hard drive, large thumb drive, LAN, local drive). No Windows registry changes are made
 - **Need a DVD-ROM** to install
 - **Monitor resolution of 1200x1024** optimal (other resolutions work but cause viewing difficulties)
 - **Application runs well on a modest machine** by today's standards (Pentium 4 1.8 Ghz, 512 MB RAM).
 - **High-speed Internet connection, IE 7.0+ or Mozilla 2+** needed to download and view Daily Weather Map data from NOAA Central Library
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Software Attributes

- **Dynamic mapping** algorithms support zoom and unzoom while maintaining Lambert-Conformal map projection
 - **Map data** can be displayed for any North American region, state, province, or NWS forecast area
 - **Simple GUI program** written in C++ using Borland C++ Builder 5.0
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Planned Upgrades/Enhancements

- Add ability to display upper air data plots on a map for North America (00Z and 12Z) – specifically for mandatory levels between 1000 and 100 mb.
- Make upper air data available for all days 1948-present
- Click on map for display of a specific Skew T-log P plot
- Reprogram the application in Java to make available to Linux/Unix/Mac users
- Program as a web application or applet for possible inclusion on NWS web sites.

comments/questions/requests: send to jay.albrecht@noaa.gov
