



NCAR

4dwx Range Web Pages

2006 Forecasters Conference



Portals – the next generation




- Configurable
 - Add portlets to page layout
 - Edit properties of each portlet
- Customizable
 - Public and private pages
 - Each user can have individualized account



Portal Example - Public



NCAR



Army Test-Range Portal

Welcome!
Sign In

Home
Current
Forecast
Links

Current Obs

Site:
dpg_s1

- Date and Time (GMT)
- Longitude
- Latitude
- Elevation
- Pressure
- Temperature
- Dew Point
- Relative Humidity
- Wind Direction
- Wind Speed
- Wind Gusts
- Wind Direction S.D.
- Solar Radiation
- 15 Minute Precipitation
- 24 Hour Precipitation
- Wind Chill
- Wet Bulb Globe Temp.

Range Forecast

From kimberly.sutkevich@us.army.mil
Date: Wed Jul 19 18:21:38 GMT 2006
Subject: Forecast posted Wed Jul 19 18:21:38 GMT 2006

Forecast Prepared by WDTC Meteorology Division. (Kimberly Sutkevich);

WEATHER SYNOPSIS FOR: WEDNESDAY 19 JULY 2006

Moisture in the region is producing partly cloudy skies, rain showers and thunderstorms for today. Drier air will return as a ridge sets up northwesterly flow over the area for the weekend.

***** WEATHER FORECAST FOR: WEDNESDAY 19 JULY 2006 *****

HIGH TEMPERATURE FOR TODAY : 99 F


Partly cloudy with scattered showers and thunderstorms during the afternoon into the evening. Southerly winds at 10 to 15 mph with gusts to 20 mph.

Weather Warnings

MAP
TIMELINE
TEXT

Display SAMS locations on map

NO WEATHER WARNING IS VALID AT THIS TIME



Almanac

Date : 2006:07:21

Sunrise/Sunset : 06:20 / 20:30

Moonrise/Moonset : 02:37 / 18:40

Moon Illumination (%): 12%

Civil Twilight : 05:49 / 21:30

Dawn/Dusk:

Next day / Prev day



Portal Example - User



NCAR

Army Test-Range Portal

Welcome, Arnaud
My Account - Sign Out

Content and Layout Look and Feel

Home **Current** **Forecast** **Mission** **Links** **Docs** **MetVault**

Current Obs

Site: **dpg_s1** ▼

Date and Time (GMT) 2006-07-21 12:15:00
 Pressure 997.3 hPa
 Temperature 32.9 C
 Dew Point 13.2 C
 Relative Humidity 30.39 %
 Wind Speed 1.6 m/s
 Wind Direction S.D. 9
 Wet Bulb Globe Temp. 25.03 C

Calendar

Day - Week - Month - Year - Events - Tasks

Friday, July 21, 2006

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

There are no events on this day.

Almanac

Date : 2006:07:21 July ▼ 2006 ▼ Meeting ▼

Sunrise/Sunset : 06:20 / 20:56 M
 Moonrise/Moonset : 02:37 / 18:44
 Moon Illumination (%) : 12%
 Civil Twilight : 05:49 / 21:11
 Dawn/Dusk :

Next day / Prev day

Range Forecast

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Admin

Company Users
 Portlets Groups
 Roles



Portals – Proposed Tabs



- **Current Tabs – application-centered**
 - Home, Login/Logout
 - Model, Local and National
 - Documentation, Tools and Custom
- **New Tabs – task-centered**
 - Current Conditions
 - Range and Mission Forecast
 - Mission Support and Met Analysis
 - Administrative



Tab – Current Conditions



- Current readings at Met Stations
 - Columns and tables
 - Almanac Data
- Real-time images
 - MRRD or Nowcast Images
 - Satellite and Radar from external websites
- Alerts
 - WBGT
 - Lightning



Tab – Range Forecast



- Current Conditions, and ...
 - JViz
- Model Images
 - RT-FDDA (MM5 and WRF)
 - Models from external websites
- Forms
 - Forecast
 - Warnings



Tab – Mission Forecast



- Range Forecast, and ...
 - JViz
- DSS Tools
 - SCIPUFF
 - Virtual Soundings, NAPS, Lewis
- Climatology
 - GCAT/MetVault
 - CPCS



Tab – Mission Support



- Current Conditions
- Range Forecast
- Mission Forecast
- Special



Tab – Met Analysis



- Archive
 - Model Data
 - Observations
- MetVault
- Climatologies



Tab – Administrative



- User Accounts
- Monitoring
- Documentation
- Training



Met Stations Portlets









- Select site, time and field
 - Column format – two variables fixed
 - Tabular format – one variable fixed
- Configure fields, sites, times
- Configure units
- Configure time zone



Met Stations – Column



CURRENT OBSERVATIONS      

Show for all:

Station:

at Time:

Temperature: 15.9 °C
Dewpoint: 12.4 °C
Wind Speed: 34 Km/h
Wind Direction: NNE

Default "Show for all" selection:

Variables to show and preferred units:

Temperature and

Dewpoint and

Wind Speed and

Wind Direction and



Met Stations Portlets



- **Derived Fields**
 - Wet Bulb Globe Temperature, Wind Chill
 - Accumulated Precip
 - Other (Refractive Index, Wet/Dry Bulb)
- **Climatology**
 - Averages and extremes for each field
 - Temperature (yesterday hi, overnight low)
 - Precip (Normal/total month/year)



Almanac Portlet



- Sunrise / Sunset
- Moonrise / moonset
 - Illumination (or phases, age in days)
- Civil/Nautical/Astronomical
Twilight
- Tides (time/height for high and
low)



Almanac Mockup




Almanac

DPG SAMS 1 ◀ Jul 20 2006 ▶

UTC	Rise	Set
Sun (Actual)	12:19	02:56
Civil	11:48	03:27
Nautical	11:09	04:07
Astronomical	10:24	04:51
Moon	08:37	01:00

Waning Crescent @ 17.6%



Jul/25 Aug/01 Aug/09 Aug/16

Temperature (°C)	Low	High
Record	10.4 1988	39.9 2003
Normal	15.0	35.9

Pressure (mb)	Low	High
Record	853.9 1988	872.9 1990
Normal	864.8	869.6

Almanac

Configure:

Location: dpg_sl

Time Zone: UTC

Show: UTC

- Sun Rise/Set US/Mountain
- Civil Twilight US/Arizona
- Nautical Twil: US/Alaska
- Astronomical Twil: US/Eastern
- Moon Rise/Set
- Next Moon Phases

Pressure mb

Temperature °C

Dew Point °C

Wind Speed m/s

Solar Radiation Lg/min

15 Minute Precip mm

Relative Humidity %

Save Preferences



Alerts Portlet



- **WBGTT**
 - Configure thresholds, colors
 - Link to information sheet
- **Lightning**
 - Map-based
- **Other MAT-like alerts**



Forms



- **Forecast Creation Tool**
 - Data from database (yesterday hi/lo)
 - Data from almanac (sun/moon rise/set, begin/end twilight)
- **Climatology Request Form**



Other Portlets



- Model data viewing
- DSS Tools
- Webstart Apps
- Range Calendar Tool
- RoboHelp