



I-80 Coalition



- *National Weather Service - Reno*
- *Rhett Milne (WCM)*



Discussion Topics

- **NWSChat Update**
- **Dual Pol Doppler**
- **Travel Route Forecasts**
- **Watch vs Warning vs Advisory**
- **iNWS reminder**

Google Map Panel

Map Valid: 11:35 AM Tools Opacity

Layers Control

- Base Layer
 - Blank
 - Google Street
- Satellite
 - GOES Water V
 - GOES13 East
 - GOES11 West
 - GOES Visible
 - GOES IR
- Precip/RADAR
 - NMQ Q2 3 Day
 - NMQ Q2 2 Day

NWSChat Live Login

Username:

Password:

Show Debug Browser Save Login Login

Welcome to NWSChat Live, please log in with your NWSChat account.
 Switch to [NWSChat Live without Map](#)

Help

NWSChat Live Application

Most Recent Changes

- 1 Sep: Tweak reconnection logic to hopefully...
- 9 Aug: Warnings are now presented when...
- 2 Aug: Make another attempt at getting browser-save-login to work and add some code to prevent the browser from caching important parts of this page.
- 22 Jul: Added Storm Prediction Center Days 1 through 3 outlooks.
- 21 Jul: Added HPC Quantitative Precipitation Forecasts (QPF) for the day1, day2, and day1-5 periods as available layers on the map.

"NWSChat Live" is a pure web browser instant messaging client for NWSChat. The purpose of the application is to provide users with a painless means to join the NWSChat conversation without installing third party software or worrying about local network firewalls. Since this application runs purely over HTTPS (port 443) and without third party browser plugins, almost all users should be able to run this application without local modifications. The only requirement is for a modern web browser that supports javascript.

This application is under rapid development and may contain bugs. Please report bugs and suggestions to nwschatadmin@noaa.gov. Please be sure to mention the version and brand of web browser you use.

Audio Alert Credits



NWSChat Live

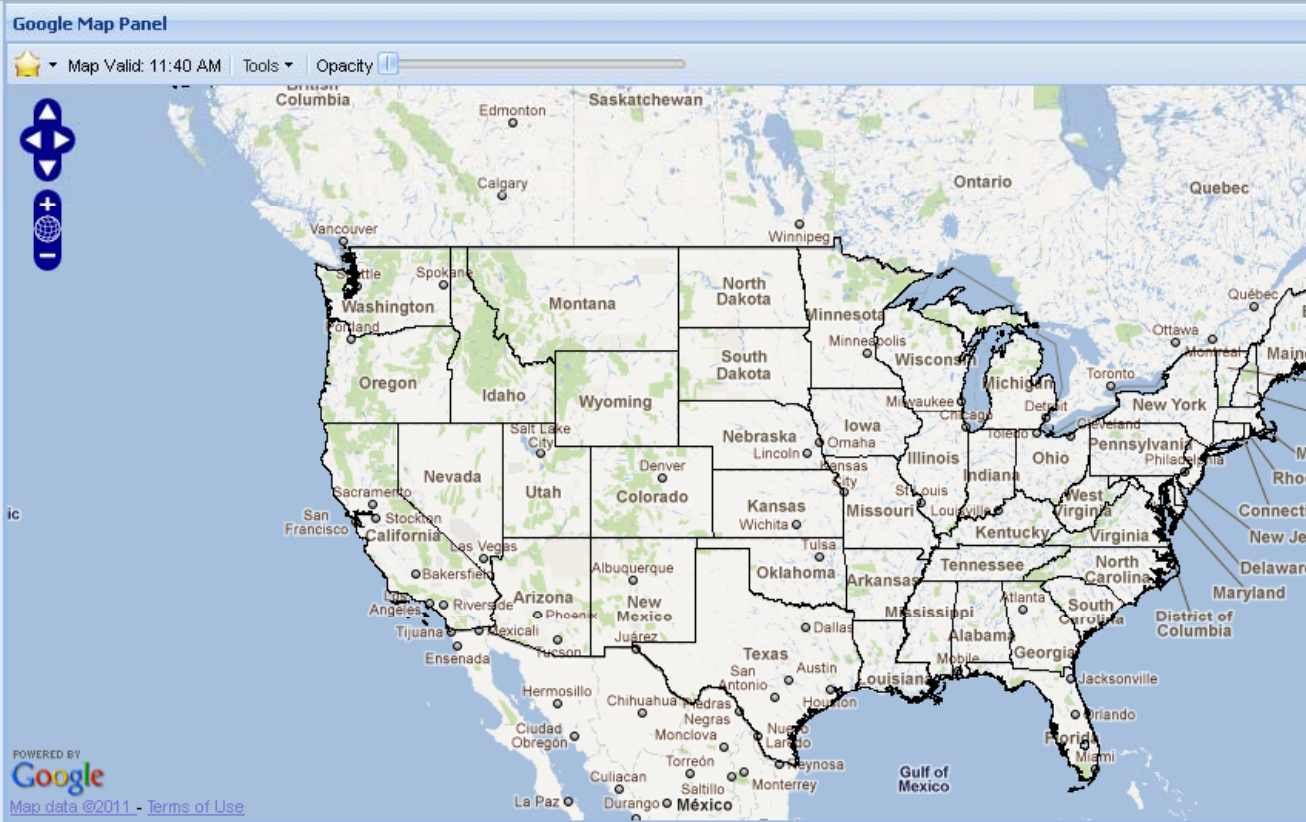
Actions Available [Speaker Icon]

Buddies

Chatroom Bookmarks

Chatrooms

- Columbia (CAE) EM Chat (colu...)
- Corpus Christi (CRP) Chat (crg...)
- CR GMAT (crgmat)
- CR People Talk (crpeopletalk)
- CRH Management (crhmanage)
- crvtf (crvtf)
- Dallas/Fort Worth (FWD) Chat
- Dallas/Fort Worth (FWD) EMA
- Des Moines (DMX) Chat (dmxc...)
- Des Moines (DMX) EM Chat (di...)
- Detroit (DTX) Chat (dtxchat)
- Detroit (DTX) DOT Chat (dtxd...)
- Dodge City (DDC) Chat (ddoch...)
- DRU Chat (druchat)
- DRUID Chat (druaidchat)
- Duluth (DLH) Chat (dlhchat)
- EACC East Fire Chat (eacc...)
- EACC West Fire Chat (eaccw...)
- East TX Skywarn (easttxskyw...)
- EGBC Fire Chat (egbcfirechat)
- El Paso (EPZ) Chat (epzchat)
- Elko (LKN) Chat (lknchat)
- ep1chat (ep1chat)
- ep2chat (ep2chat)
- ep3chat (ep3chat)
- ep4chat (ep4chat)
- ep5chat (ep5chat)
- eptropicalchat (eptropicalchat)
- ER NWS Products (erbotstalk)
- ER People Talk (erpeopletalk)
- Eureka (EKA) Chat (ekachat)
- Eureka (EKA) EMA Chat (ekae...)
- FAC Chat (facchat)



Layers Control

- Base Layer
 - Blank
 - Google Streets
- Satellite
 - GOES Water Vapor
 - GOES13 East Visible
 - GOES11 West Visible
 - GOES Visible Composite
 - GOES IR
- Precip/RADAR
 - NMQ Q2 3 Day Precip
 - NMQ Q2 2 Day Precip
 - NMQ Q2 1 Day Precip
 - NMQ Q2 1 Hour Precip
 - NEXRAD Base Reflectivi
 - NMQ Hybrid Scan Reflec
 - No Overlay
- Chatroom Products
 - Local Storm Reports
 - Storm Based Warnings
- HPC Precipitation Forecasts
 - Day 1 GPF
 - Day 2 GPF
 - Day 1-5 GPF
- Storm Prediction Center Produc
 - Day 1 Convective Outlo

Help

Audio Alert Credits

- [Bleep Noise](#), Attribution 3.0, Recorded by Mike Koenig
- [Cow](#), Attribution 3.0, Recorded by BuffBill84
- [Door Bell](#), Sampling Plus 1.0, Recorded by akanimbus
- [EAS Tone](#), Attribution 3.0, Recorded by Mike Koenig
- [Elevator](#), Sampling Plus 1.0, Recorded by Corsica

The screenshot displays the NOAA NWSChat Live interface. At the top, the NOAA logo is visible. The browser address bar shows the URL <https://nwschat.weather.gov/live/>. The interface is divided into several sections:

- Left Panel:** Contains navigation options like "Most Visited", "Getting Started", and "Latest Headlines". Below this is the "NWSChat Live" section with "Actions", "Available", and "Buddies" lists. A "Chatrooms" list includes various regional chats such as "Phoenix (PSR) Chat", "Pittsburgh (PBZ) Chat", "Portland (PQR) Chat", "Reno (REV) Chat", and "Seattle (SEW) Chat".
- Center Panel:** Features a "Google Map Panel" showing a map of the United States. The map is titled "Map Valid: 12:00 PM" and includes navigation controls. Below the map is the "Layers Control" panel, which lists various data layers like "Base Layer", "Satellite", "GOES Water Vapor", "GOES13 East Visible", "GOES11 West Visible", "GOES Visible Composite", "GOES IR", "Precip/RADAR", "NMQ Q2 3 Day Precip", and "NMQ Q2 2 Day Precip".
- Bottom Panel:** Contains a chat window for the "revchat" room. It includes a "Message" input field and a list of recent messages from "nwsbot" regarding "REV issues" and "Area Forecast Discussion (AFD)". The messages include timestamps and links to AFDs, as well as weather alerts such as "STRONG THUNDERSTORM NEAR BRIDGEPORT RESERVOIR for Mono [CA] till 4:45 PM PDT" and "STRONG THUNDERSTORM NEAR MONO LAKE AND HIGHWAY 395 for Mono [CA] till 6:00 PM PDT".
- Right Panel:** Shows a list of "11 people in room", including users like "nws-ashley.helmetag", "nws-dawn.fishler", "nws-katherine.labelle", "nws-michael.staudenmaier", "nws-ray.martin", "nws-rhett.milne", "nws-shane.snyder", "nws-STO.jason.clapp", "nwsbot", "nws-shnx-wcm-james.brother", and "nwsrev-forecaster20".





NOAA's National Weather Service NWSChat

[NWSChat Home](#)

[Reset Password](#)

[Documentation/Help](#)

[Contacts](#)

[Online Tools](#)

[NWS](#)

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WWUS85 KREV 192313

SPSREV

SPECIAL WEATHER STATEMENT
NATIONAL WEATHER SERVICE RENO NV
413 PM PDT MON SEP 19 2011

CAZ073-192345-
MONO-
413 PM PDT MON SEP 19 2011

...STRONG THUNDERSTORM NEAR BRIDGEPORT RESERVOIR...

AT 407 PM PDT...NATIONAL WEATHER SERVICE METEOROLOGISTS WERE TRACKING
A STRONG THUNDERSTORM NEAR BRIDGEPORT RESERVOIR...OR 5 MILES
NORTHWEST OF BRIDGEPORT...AND MOVING SOUTH AT 5 MPH.

MODERATE RAIN WITH RAINFALL AMOUNTS OF AROUND ONE HALF INCH PER HOUR
REDUCING VISIBILITIES TO LESS THAN THREE MILES...SMALL PEA SIZE
HAIL...AND GUSTY WINDS OF AROUND 30 TO 40 MPH... ARE EXPECTED WITH
THIS STORM.

IF ON OR NEAR RESERVOIR GET OUT OF THE WATER AND MOVE INDOORS OR
INSIDE A VEHICLE NOW. DON'T BE CAUGHT ON THE WATER IN A
THUNDERSTORM. STRONG WIND GUSTS AND LIGHTNING NEAR THUNDERSTORMS
POSE AN IMMEDIATE DANGER TO BOATERS.

IF YOU ARE IN THE PATH OF THIS STORM...SEEK SHELTER INDOORS AND STAY
AWAY FROM WINDOWS. STAY TUNED TO NOAA ALL HAZARDS RADIO...
WEATHER.GOV/RENO ON THE INTERNET...OR LOCAL MEDIA FOR LATER UPDATES
AND POSSIBLE WARNINGS.

&&

LAT...LON 3821 11921 3829 11940 3842 11931 3836 11910
TIME...MOT...LOC 2312Z 021DEG 3KT 3832 11927

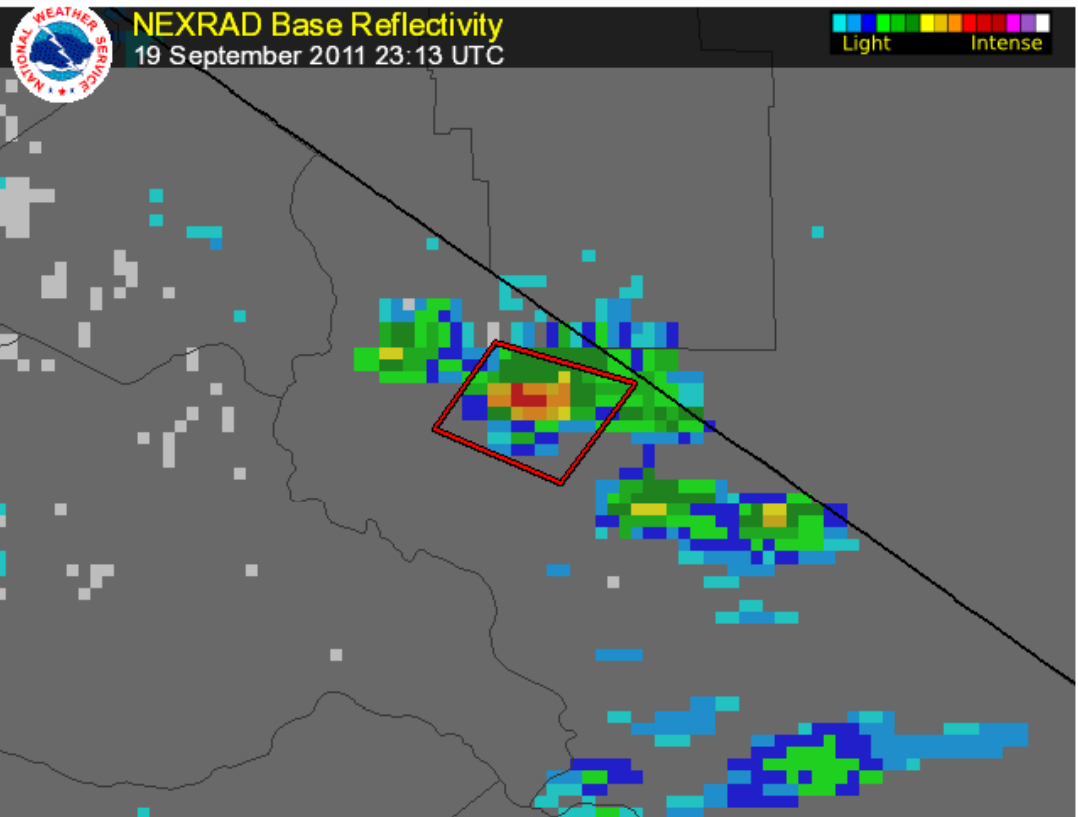
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NOAA National Weather Service



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LAT...LON 3821 11921 3829 11940 3842 11931 3836 11910
TIME...MOT...LOC 2312Z 021DEG 3KT 3832 11927
\$\$
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US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
1325 East West Highway
Silver Spring, MD 20910
Page Author: [NWSChat Administration Team](#)

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[Information Quality](#)
[Credits](#)
[Glossary](#)

NWSChat Live

Actions Available

Buddies

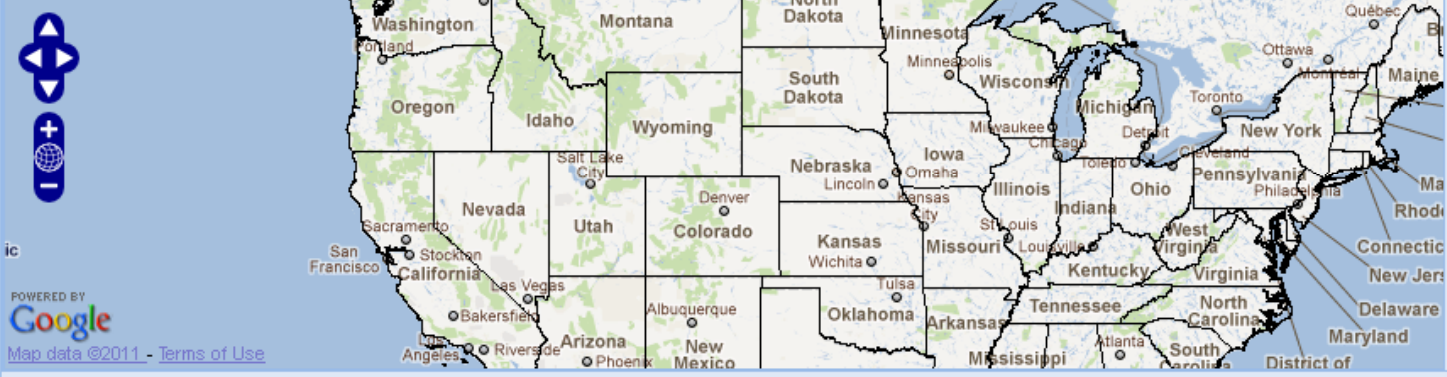
Chatroom Bookmarks

Chatrooms

- Phoenix (PSR) Chat (psrchat)
- Phoenix (PSR) Ham Chat (psr-ham)
- Pilot Reports (pirep)
- Pittsburgh (PBZ) Chat (pbzchat)
- Pocatello (PIH) Chat (pihchat)
- Portland (PGR) Chat (pgrchat)
- Portland (PGR) EM Chat (pgr-em)
- PR Bots Talk (prbotstalk)
- PR People Talk (prpeopletalk)
- PTWC Chat (ptwcchat)
- Pueblo (PUB) Chat (pubchat)
- Pueblo (PUB) EM Chat (pub-em)
- Quad Cities (DVN) Chat (dvnchat)
- Quad Cities/Davenport (DVN) I
- RADAR (radar)
- Raleigh (RAH) Chat (rahchat)
- Rapid City (UNR) Chat (unrchat)
- redoubtchat (redoubtchat)
- Reno (REV) Chat (revchat)
- rgn3fwxchat (rgn3fwxchat)
- Riverton (RMV) Chat (riwchat)
- RMCC Fire Chat (rmccfirechat)
- ROC Chat (rocchat)
- SACC East Fire Chat (sacc-east)
- SACC West Fire Chat (sacc-west)
- Sacramento (STO) Chat (stochat)
- saferchat (saferchat)
- Salt Lake City (SLC) Chat (slcchat)
- San Angelo (SJT) Chat (sjtchat)
- San Diego (SGX) Chat (sgxchat)
- San Francisco/Monterey (MTR)
- San Juan (SJU) Chat (sjuchat)
- Seattle (SEW) Chat (sewchat)

Google Map Panel

Map Valid: 12:20 PM Tools Opacity



Layers Cont

- Base L
- Satellite
- Precip/F

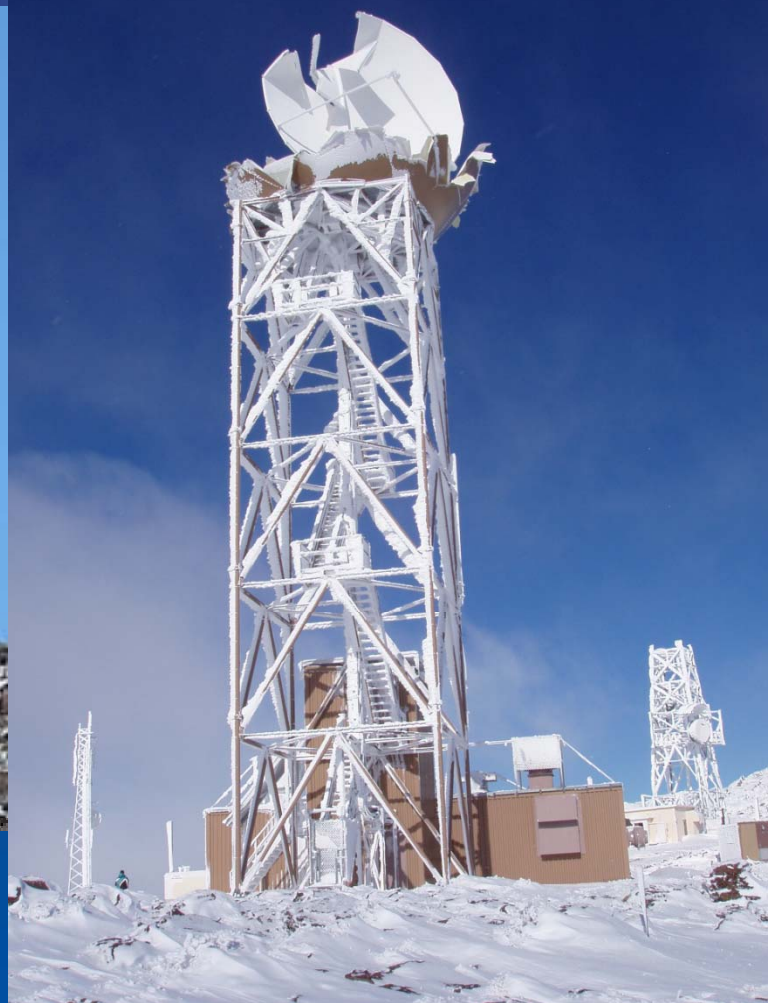
Help revchat nws-shane.snyder

Clear Room Log Print Log View As HTML A A+

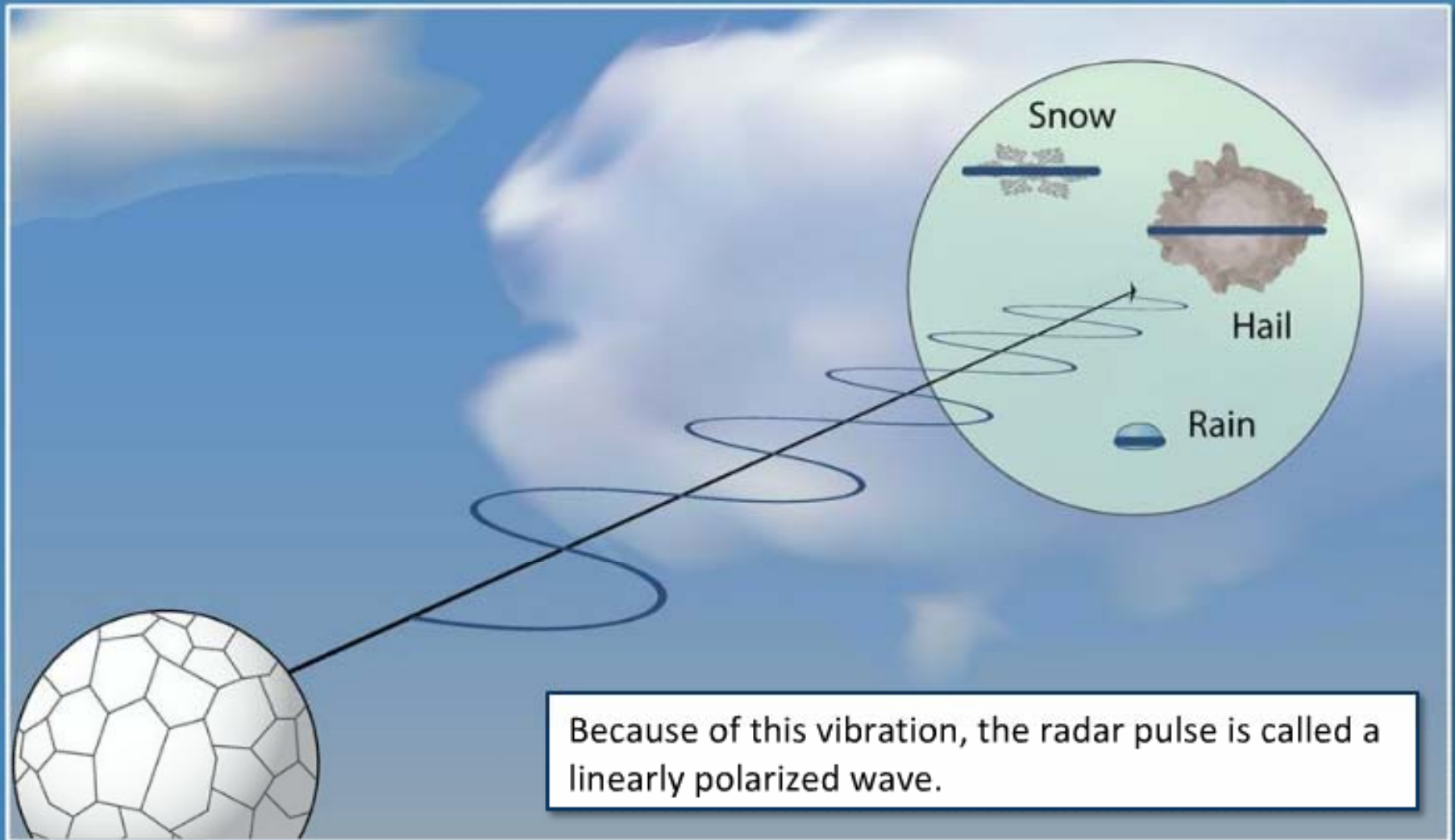
Message



Dual Pol Doppler Radar

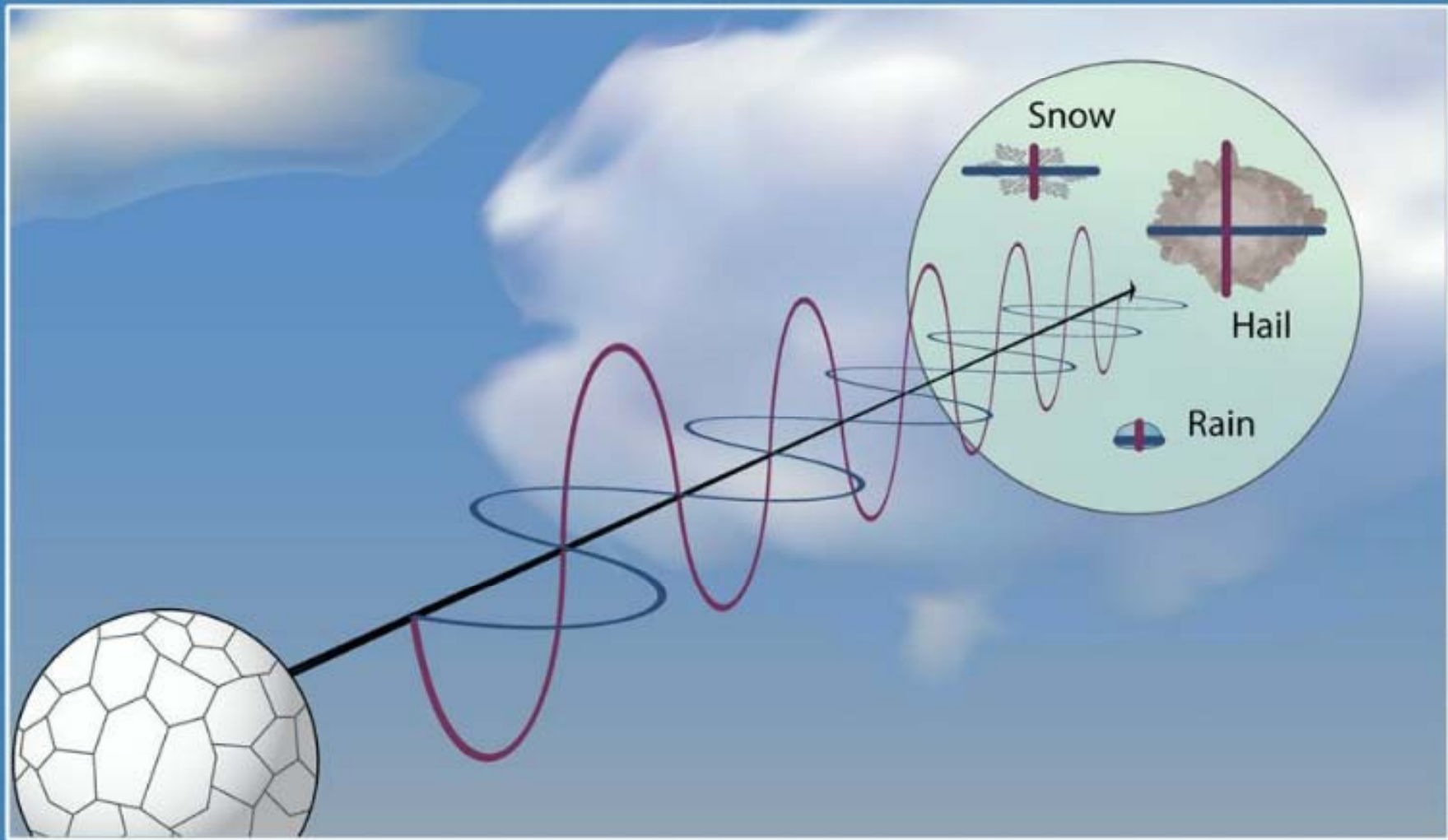


What Is Dual-Polarization Radar & How Is It Different Than Conventional Doppler Radar?

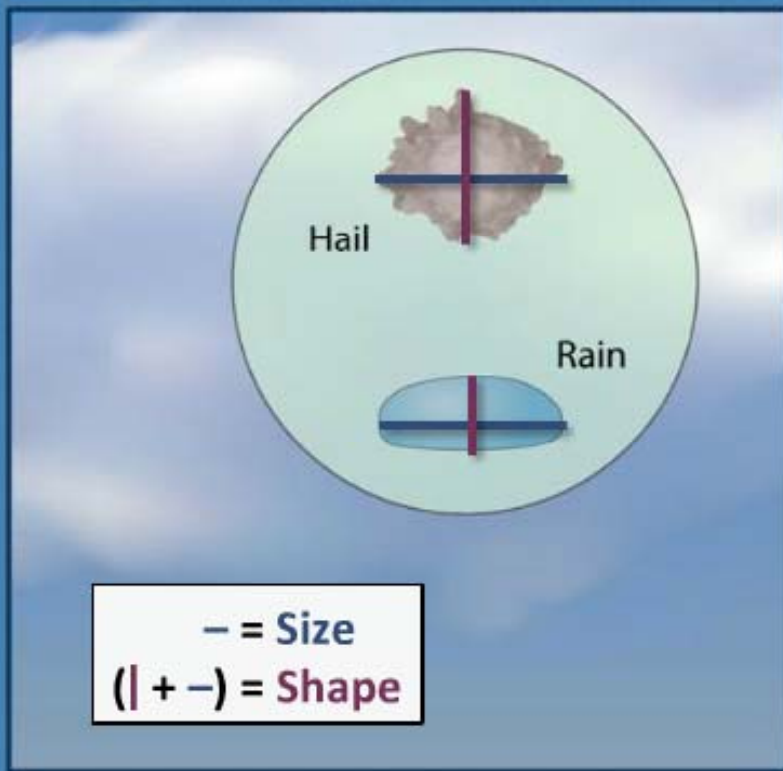


Because of this vibration, the radar pulse is called a linearly polarized wave.

What Is Dual-Polarization Radar & How Is It Different Than Conventional Doppler Radar?

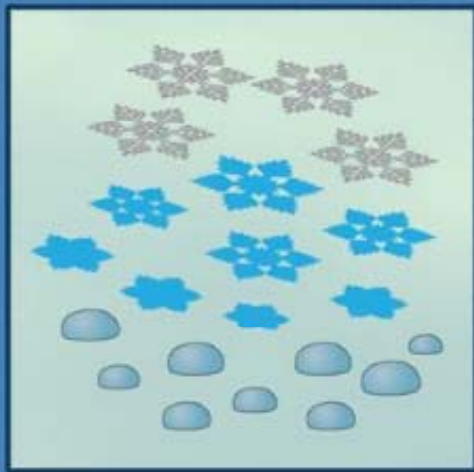


One Reason This Difference Is Important: Knowing Target Size vs. Target Shape

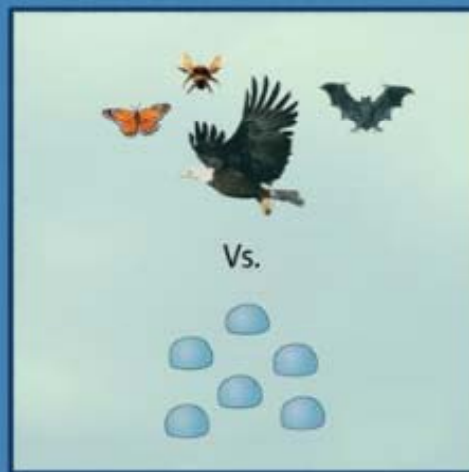


Another Reason This Difference Is Important: Getting Information about Target Variety

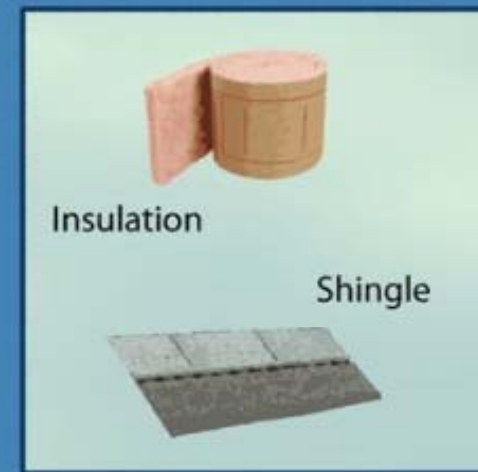
Situations where variety information can help:



More than one
precipitation type

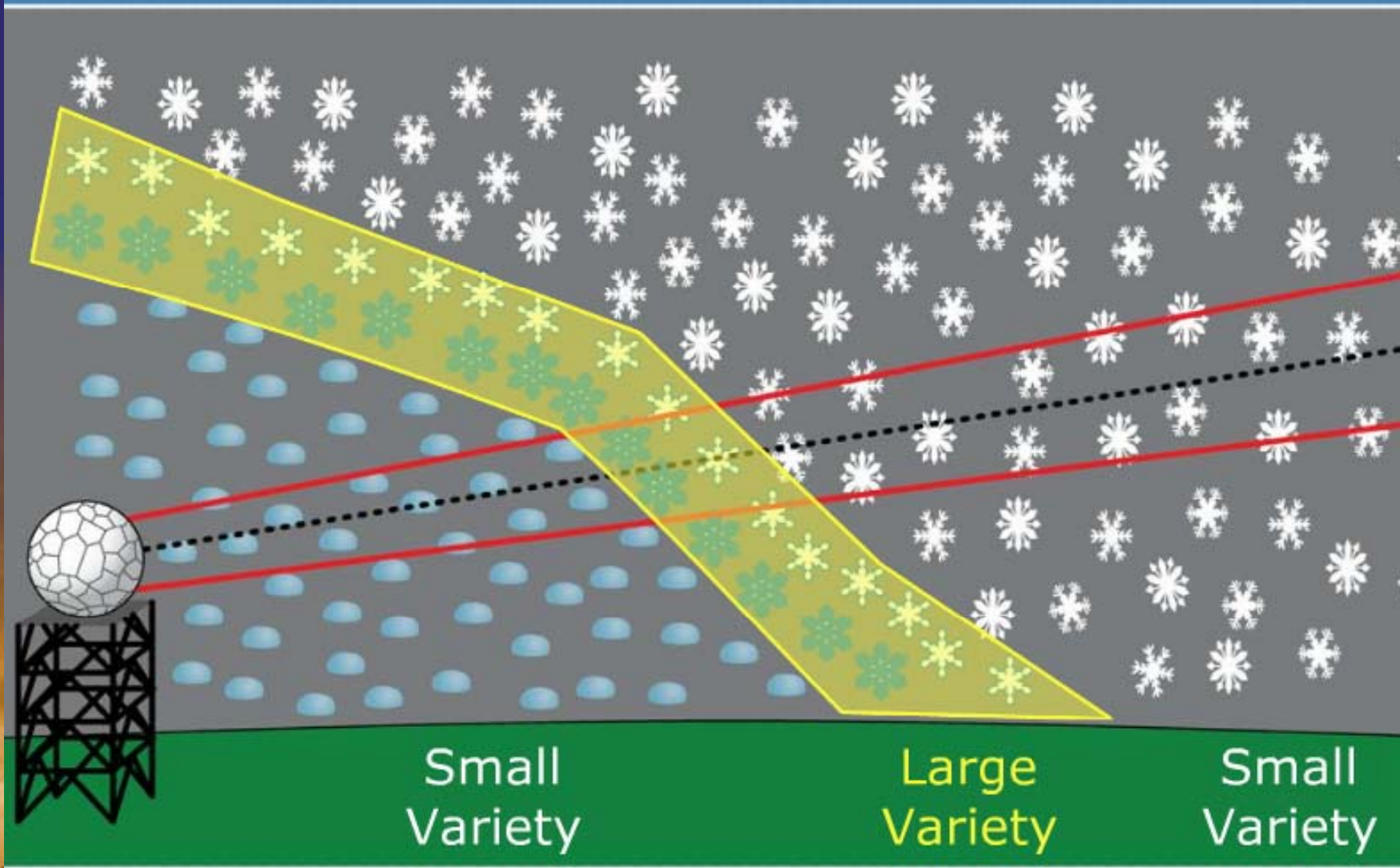


Differentiating
biological from
weather targets

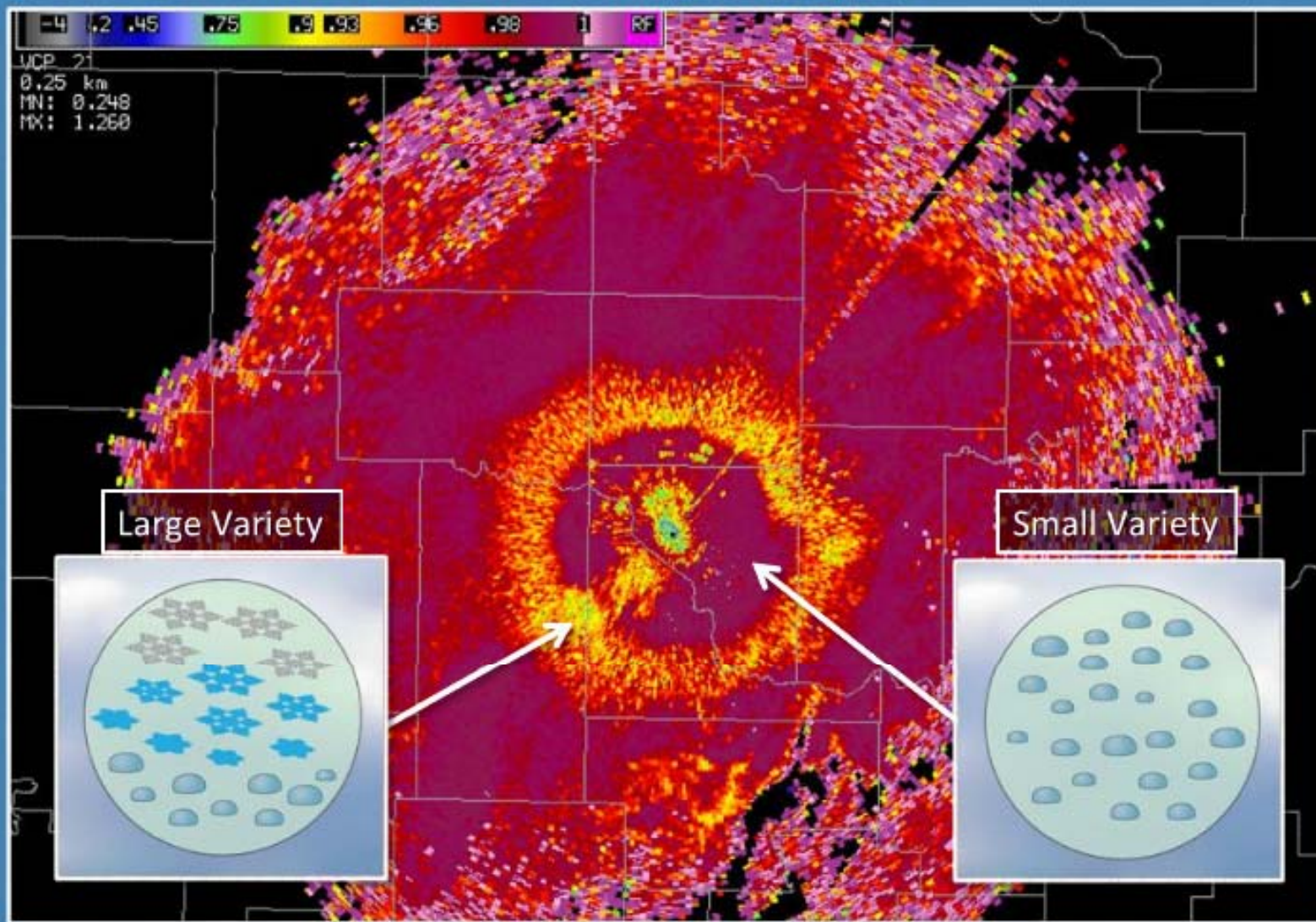


Identifying debris
from significant
tornadoes

What Are Some Examples of Large & Small Target Variety: A Schematic



What Are Some Examples of Large & Small Target Variety



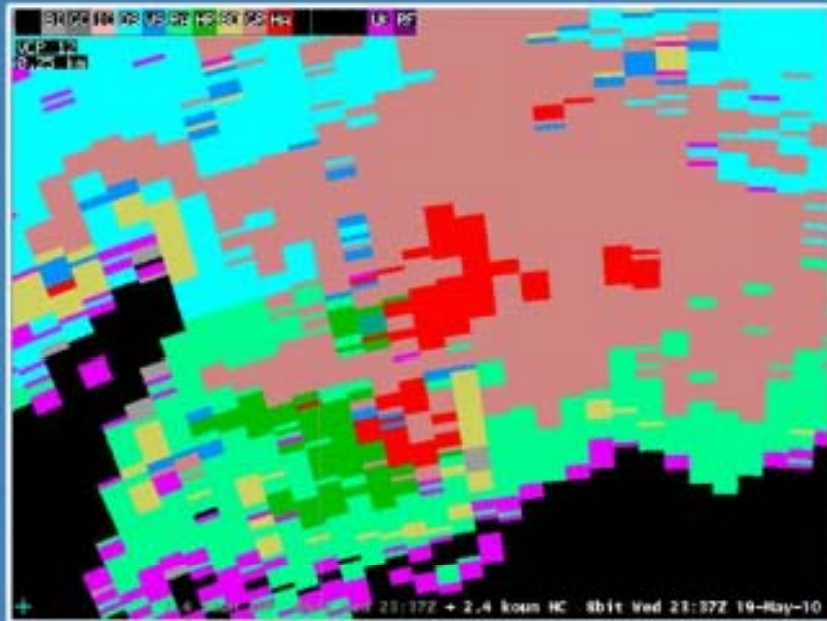
How Will Dual-Polarization Technology Benefit NWS Customers?

The five benefits you should expect include:

1. Identify non-weather targets more easily
2. Differentiate rain, snow, melting snow
3. Detect when hail is present in a thunderstorm
4. Detect areas of heavy rain better
5. Detect debris lofted by significant tornadoes

It will take years for benefits to fully materialize!

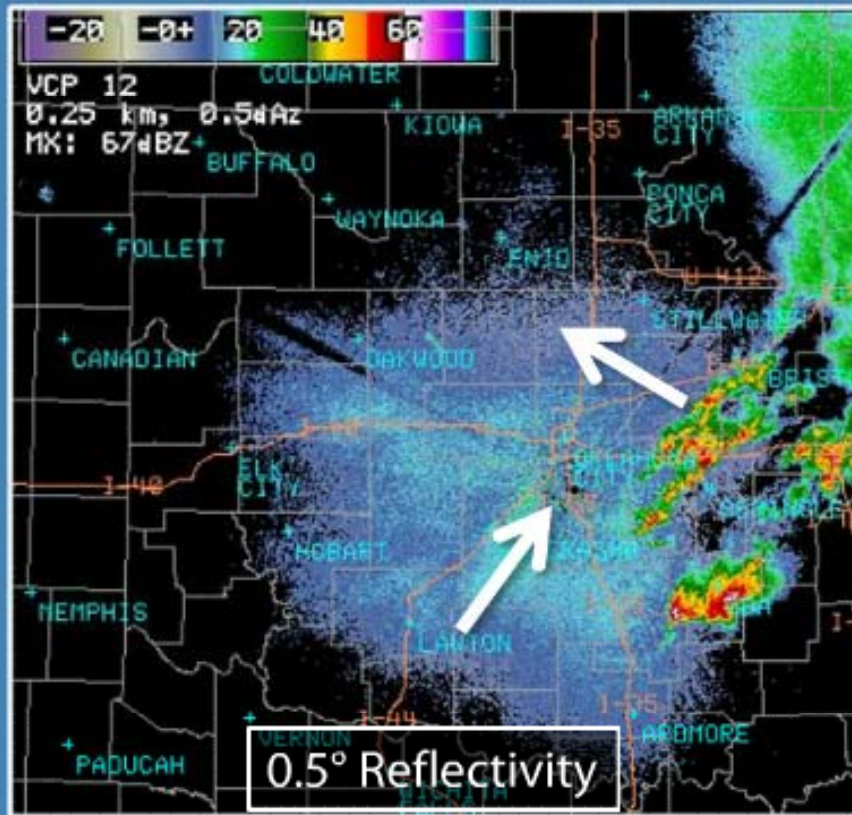
Hydrometeor Classification Example



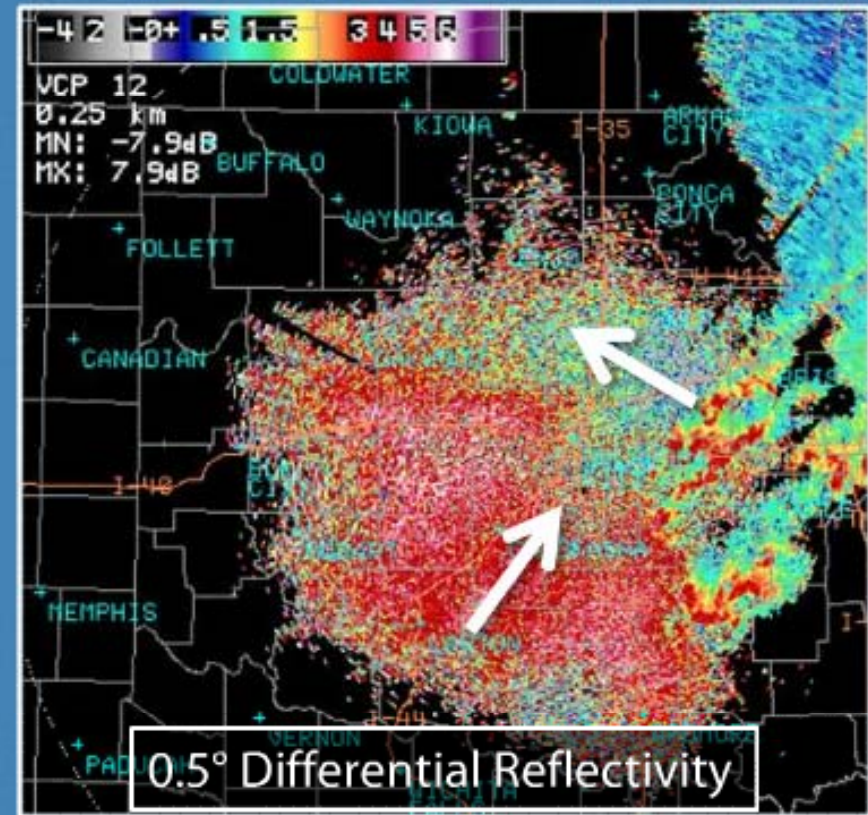
- BI - Biological
- GC - Ground clutter
- IC - Ice crystals
- DS - Dry snow
- WS - Wet snow
- RA - Rain
- HR - Heavy rain
- BD - Big drops
- GR - Graupel
- HA - Hail-rain
- UK - Unknown
- RF - Range folded



Using Shape and Variety Information to Better Identify Non-Weather Echoes

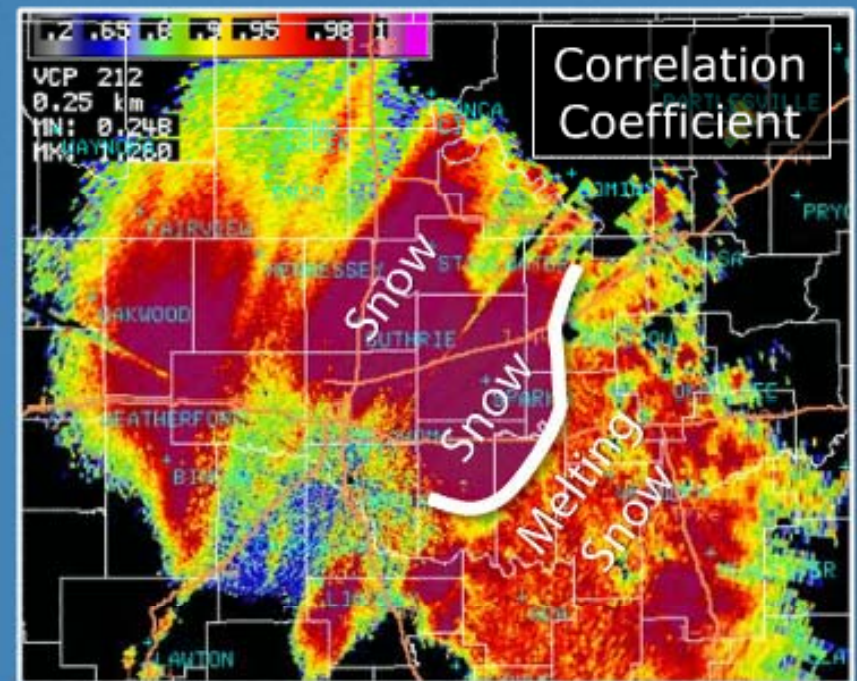


Arrows indicate flight direction of migrating birds



Dual-polarization radar products improve identification of biological targets

Using Shape and Variety Info to Differentiate Rain, Snow, and Melting Snow



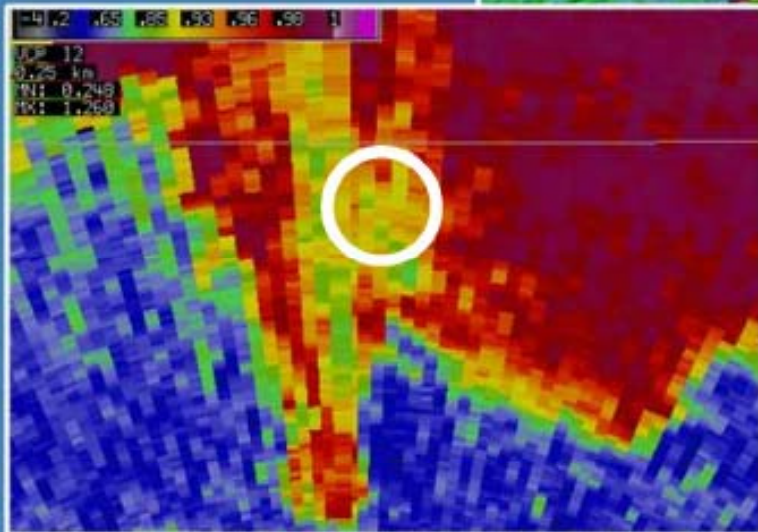
NOTE: Dual-polarization radar identifies precipitation type above the ground, not at the surface!

Using Shape and Variety Information to Better Detect Hail Cores

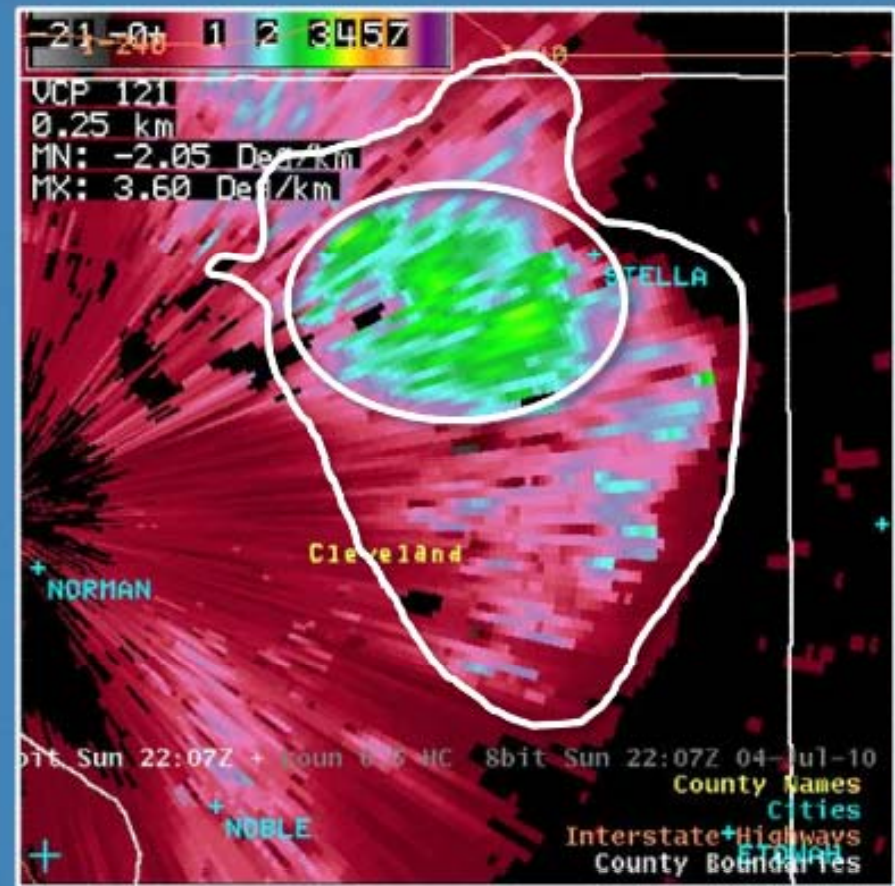
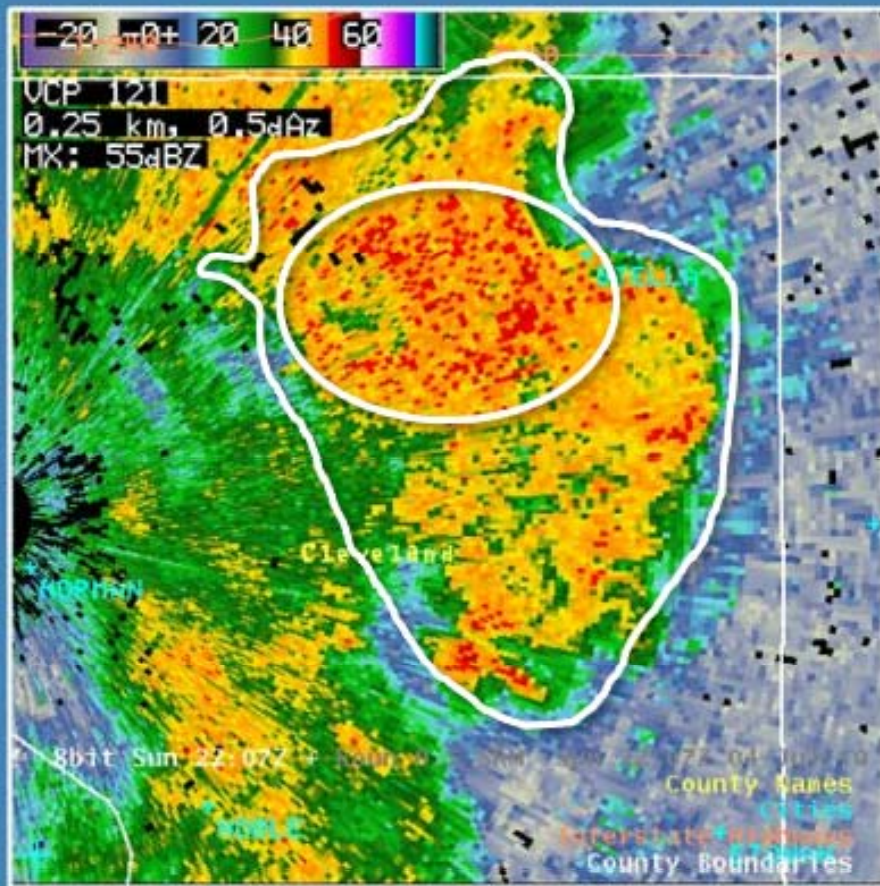
High values of reflectivity can be due to hail



High confidence of hail in circle



Heavy Rain Detection Should Improve w/ the Dual-Polarization Upgrade

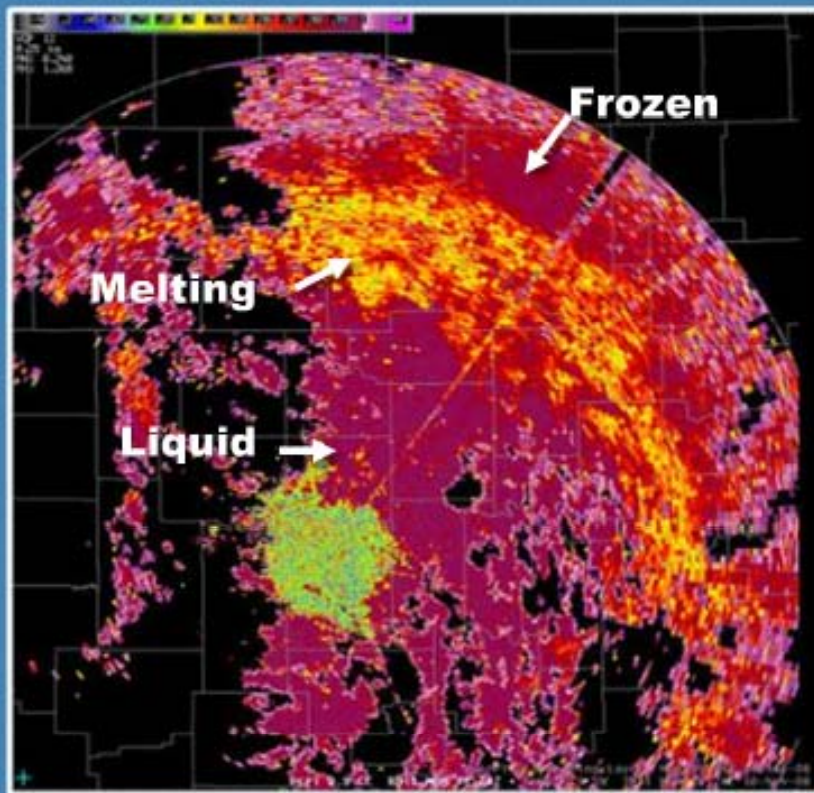


Detecting High Intensity Rainfall and Public Safety Decision Making



Better rainfall estimates should help NWS forecasters issue more timely flooding products

Melting Layer Detection Helps Support Transportation Needs



Can: Help determine precipitation type for both aviation & surface transportation

Cannot: Identify precipitation type definitively, especially at the surface

How Does Hail Detection & Estimating Hail Sizes Different?

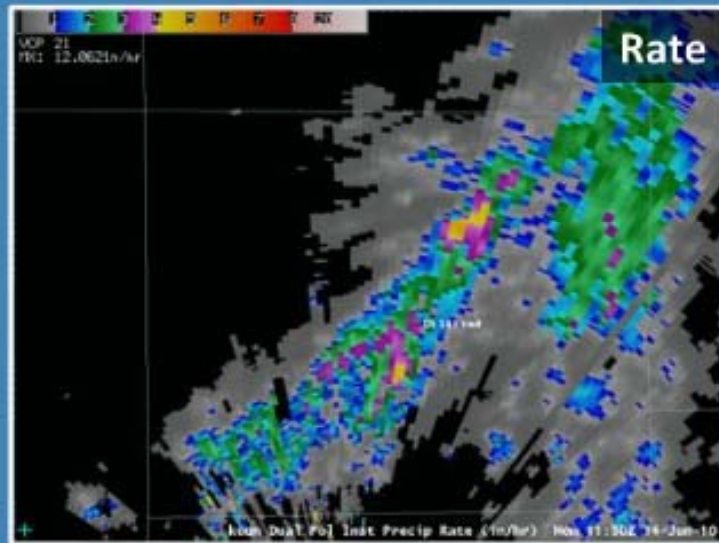
Can: Pinpoint areas of hail better

Cannot: Measure size of hail that hits the ground



Estimation of Rainfall Amounts

- 1 hour (OHA)
- Storm Total (STA)
- Instantaneous Rate (DPR)





Watch/Warning/Advisory

- **Watch**

- *It could happen (24-72 hours in advance)*
- *Winter Storm, High Wind, Fire Weather*

- **Warning**

- *It is going to happen (0-24 hours)*
- *Dangerous conditions*
 - Whiteouts, Wind Damage, Wildfire growth

- **Advisory**

- *It is going to happen (0-24 hours)*
- *Conditions not overly dangerous*
 - Slick Roads, Gusty Winds



Warning vs Advisory

- **Warning → Trouble will come find you!**
- **Advisory → You have to find trouble.**
- **Watch → A Warning or Advisory will very likely be issued.**



On Your Marks:

- **Special Weather Statement/Outlook = Get Ready**
 - *(48 hrs – 6 days)*
- **Watch = Get Set**
 - *(24-72 hours)*
- **Warning or Advisory = Go**
 - *(Occuring or will occur within the next 24 hours)*



Sierra Warning/Advisory Criteria

- **Sierra Heavy Snow/Winter Storm Warning-**

5000-7000': 8" in 12 hrs or 12" in 24 hrs

Above 7000': 12" in 12 hrs or 18" in 24 hrs

- **Snow Advisory (1/2 of warning criteria)-**

5000-7000': 4" in 12 hrs or 6" in 24 hrs

Above 7000': 6" in 12 hrs or 9" in 24 hrs



Sierra Warning/Advisory Criteria

- High Wind Warning- Below 7000': Gusts >58 MPH
- Wind Advisory- Below 7000': Gusts 45-57 MPH
- Winter Storm Warning- Heavy snow and high wind
(Heavy Snow Warning and High Wind Warning)
- Winter Weather Advisory- Multiple Precipitation Types
(Snow, sleet, rain, and Freezing rain)
- Blizzard Warning- Most Extreme Storms
(not issued for the Sierra)



Criteria...That's So 1990s

- **Impact Driven Warnings and Advisories**
 - *Six inches of snow accumulating, but 35F and just sluch on roads. Worth a Winter Storm Warning?*
 - *Six inches of snow accumulating, but 27F and accumulating on roads. Worth a Winter Storm Warning?*



http://inws.wrh.noaa.gov/

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iNWS - Interactive NWS

National Weather Service Mobile Decision Support Services (MDSS)

iNWS MOBILE ALERTING

Receive customized text message and e-mail alerts for National Weather Service products that you care about.



Welcome.

InteractiveNWS (iNWS) is the home of new mobile and desktop innovations of the National Weather Service. This application suite allows NWS partners to receive National Weather Service products in new and innovative ways, such as text messaging and mobile-enabled webpages. iNWS strives to fulfill our mission of protecting life and property by using new technology to reach out to our customers.

Recent News.

- [Text Message Alerts Unlocked for All iNWS Users](#)
- [New Version of the iNWS Web Page Released](#)
- [All Advisories, Watches and Warnings Restored to iNWS Text Message Alerts](#)
- [iNWS Text Message Alerts Limited to Warning Products](#)
- [Important Change to iNWS User Profiles](#)

iNWS is an experimental service intended for NWS core partners, including emergency managers, community leaders and other government agencies only. You are encouraged to complete a [short survey](#) on iNWS. See the iNWS [Service Description Document](#) for more information.

National Oceanic and Atmospheric Administration - National Weather Service - iNWS Version 4 - Switch to Mobile Version
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Interactive NWS My Alerts

- Alerts Home
- Account Settings
- Logout

iNWS Alert Areas

Add New Alert Area

Reno-Tahoe

Reno

ndot test with no Pyr

Hydrology Alert Points

Add New Hydro Point



Reno-Tahoe

Created on September 9 2009 4:44 PM UTC

Active Alert Types:

- Winter Weather
- Hydrology
- Non-Precipitation
- Civil Emergency

Settings

- [Edit Alert Types](#)
- [Delete Alert Area](#)

Recent Alerts for Reno-Tahoe

Correction for Reno-Tahoe

Lake Wind Advisory valid from Jul 4 1:09 PM to 5:00 PM PDT [View More](#)
Sent to *SMS and E-Mail* at Jul 4 1:13 PM PDT

New event for Reno-Tahoe

Lake Wind Advisory valid from Jul 4 1:06 PM to 5:00 PM PDT [View More](#)
Sent to *SMS and E-Mail* at Jul 4 1:06 PM PDT



Interactive NWS My Alerts

- Alerts Home
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- Logout

iNWS Alert Areas

[Add New Alert Area](#)

[Reno-Tahoe](#)

[Reno](#)

[ndot test with no Pyr](#)

Hydrology Alert Points

[Add New Hydro Point](#)

Add New Alert Area or Hydrology Point

Select the type and format of alert area you would like to create.

- Create an alert point by city, zip code, or landmark.
- Create an alert area by county.
- Create an alert point or alert area by custom drawing.

Next

iNWS is an experimental service intended for NWS core partners, including emergency managers, community leaders and other government agencies only. You are encouraged to complete a [short survey](#) on iNWS. See the iNWS [Service Description Document](#) for more information.



Interactive NWS My Alerts

- Alerts Home
- Account Settings
- Logout

iNWS Alert Areas

Add New Alert Area

Reno-Tahoe

Reno

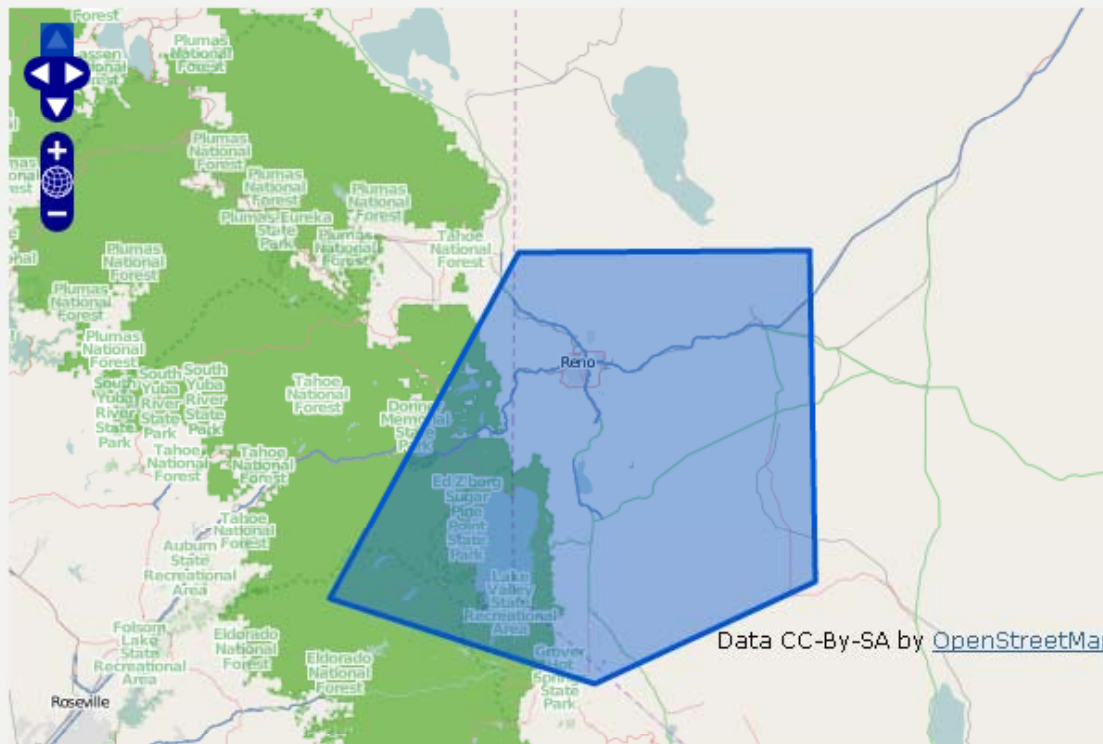
ndot test with no Pyr

Hydrology Alert Points

Add New Hydro Point

Create an alert point or alert area by custom drawing.

Using the map, draw a point, line or polygon over the area you wish to receive alerts for.



- Navigate
- Draw Point
- Draw Line
- Draw Polygon

For 'Draw Point' - Single click to draw a point.

For 'Draw Line' and 'Draw Polygon' - Single click to add points, double click to end drawing.

Next

Back

iNWS is an experimental service intended for NWS core partners, including emergency managers, community leaders and other government agencies only. You are encouraged to complete a [short survey](#) on iNWS. See the iNWS [Service Description Document](#) for more information.



Interactive NWS My Alerts

- Alerts Home
- Account Settings
- Logout

iNWS Alert Areas

+ Add New Alert Area

Reno-Tahoe

Reno

ndot test with no Pyr

EM Example

Hydrology Alert Points

+ Add New Hydro Point

Set Alert Area Options

Select which alerts you would like to receive for your alert area and name your alert area. For examples of what products are in what categories see [FAQ](#).

To change location of alert area, delete and recreate a new one.

Feature Name:

- Alert Categories:
- Severe Weather
 - Winter Weather
 - Hydrology
 - Fire Weather
 - Marine Weather
 - Coastal Hazards
 - Tropical Weather
 - Aviation
 - Non-Precipitation
 - Civil Emergency
 - Other

Update Alert Area

iNWS is an experimental service intended for NWS core partners, including emergency managers, community leaders and other government agencies only. You are encouraged to complete a [short survey](#) on iNWS. See the iNWS [Service Description Document](#) for more information.