



# **Training & Professional Development Opportunities in the NWS**

April 9 2015 LeRoy Spayd Portfolio Manager NWS Office of the Chief Learning Officer

## Outline

#### I. Opportunities for all Employees

- Individual Development Plans
- Skillsoft offerings on CLC
- 2. Training for Meteorologists & Hydrologists
- 3. Background info
  - NWSTC
  - WDTB
  - FDTB
  - COMET

## Individual Development Plans (IDP)

#### (NWS Directive 20-105)

- Employs a concept that emphasizes discussion and joint decisions by the employee and the supervisor on the specific developmental experiences necessary to fulfill the mutual goals of individual career development and organizational enhancement.
- Each IDP is uniquely tailored to the needs of the individual and the organization.
- The IDP is a personal action plan, jointly agreed to by you and your supervisor, that identifies your short and long-term career goals.
- IDP also identifies the training and other developmental experiences needed to achieve those goals, for the benefit of the individual and organization.

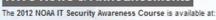
#### **NWS Learning Center (LC)**

- Use for all Training Division modules and classes.
- Resource of 1,500+
   Skillsoft courses available

#### **NEW NWS COURSES**

These courses were recently added to the NWS Learning Center

- O Crisis Communications Module 2
- Local Customer Outreach and Climate Services
- Handling Space Weather Inquiries
- QMSs: Implementation in Meteorological Services
- Synthetic Imagery in Forecasting Low Clouds and Fog
- 2012 Tropical Cyclone Impacts Graphics Update



http://noaa.learnsecuritywith.us. The course needs to be completed by July 26, 2012. Since the course is outside the Learning Center, your transcripts will be updated after the course due date.

Welcome Kirsten | Search | Logour

New Space Weather Course - "Handling Space Weather Inquiries". Visit the Space Weather page to launch the course.

EEOC Seminar in Baltimore, MD on June 28, 2012. View the Seminar Brochure for additional information.

For more NWS training news and schedules, please visit the NWS Training Portal.

#### DMOUSE OVER to PAUSE

am a New NWS Employee	AWIPS-2 Training	Dual-Pol Radar Training	Tropical Training
Welcome to the NWS! There are many great courses of interest to new NWS Employees. Get started with these: Welcome to the NWS NOAA IT Security Course NOAA Safety Course	AWIPS-2 is Coming to a WFO Near you! Get started on your AWIPS-2 Training today. For detailed info, visit: • AWIPS 2 Transition Page • AWIPS 2 Exercise Page	Get your Dual-Pol on! Sign up for a Dual-Pol Storm Of The Month webinar, or view previous webinars on the Dual-Pol Storm of the Month page. Also track your progress through Dual-Pol courses on the Dual-Pol Training Page	New Learning Plans for the 2012 Tropical Training are now available Visit the <b>Tropical Training</b> Page for more information.
Workplace Skills Training	NOAA Programs	COMET Courses	SkillSoft Course Library

# 1500 + Skillsoft courses

 Available FREE through NWS Learncenter as part of Commerce Learning Center (CLC)

#### New Vendor starting June 1

- Easier access to courses
- Improved search function
- Look for employee emails in May on the re-launch
- New courses are shorter and more focused
- New courses stress problem solving with series of challenges
- Rating system now in place

# Skillsoft Courses ex. Conflict

- Workplace Conflict: Recognizing and Responding to Conflict
- Workplace Conflict: Strategies for Resolving Conflicts
- Confrontation: What's the Best Approach
- Personal Conflict Styles
- Coping with Accusations in the Workplace
- Managing Conflict
- Manager to Manager Conflict
- Conflict: Avoid, Confront, or Delay?

# **Skillsoft Courses ex. Team Training**

- Leading Teams: Launching a Successful Team
- Leading Teams: Establishing Goals, Roles, and Guidelines
- Leading Teams: Developing the Team and its Culture
- Leading Teams: Building Trust and Commitment
- Leading Teams: Fostering Effective Communication and Collaboration
- Leading Teams: Motivating and Optimizing Performance
- Leading Teams: Dealing with Conflict
- Leading Teams: Managing Virtual Teams
- Building Trust Incrementally
- Inspiring your Team
- Support Your Leader
- Developing Self-Sufficient Teams
- Choosing the Right Team Culture
- Managing Communications in a Virtual Team
- Building and Leading Teams
- Meeting Team Performance Challenges

# **Contracting Officer (COR) training**

- NOAA employees are offered a variety of online and in-residence COR training opportunities.
- COR certifications can be achieved through the Defense Acquisition University's (DAU) online training website called FAITAS.
- NOAA WFM offers in-residence, instructor-led training for Level 1, 2, and 3 COR certifications.
- Visit the NOAA LC for information on virtual and in-residence COR training offerings.

## **Project Management Training**

- NWS LC includes links to two Project Management Learning Plans:
  - Certified Associate in Project Management (CAPM)
  - Project Management Professional (PMP)
- Learning Plans include a series of Skillsoft courses which can be taken to prepare employees for the PM certification exams.
- Certification exams cost a fee and are taken external to the LC.

# **Training for Administrative Professionals**

- DOC Administrative Professionals Online Certificate Program (APOPC) is available free of charge for DOC employees.
- APOCP is a voluntary, self-directed online program technical and administrative employees at the GS-5 through GS-12 levels.
- There are two certificate levels aimed at GSthrough GS-7 and GS-8 through GS-12.

# **HQs Operations Management**

- Taught in SSMC by NWSTC staff
- Next offering in 1-2Q of FY 16.
- Type of Course: Blended course integrating reading and online course prerequisites and 4.5 days in residence at Silver Spring.
- Target Audience:
- Headquarters office personnel leading an office, project, or program team but are NOT supervisors (GS 12-14)
- Bargaining unit employees and non-bargaining unit employees who are not managers or supervisors
- Course Description: This course provides knowledge and skills necessary to lead a team or workgroup and optimize its effectiveness. Emphasis is placed on: team situational leadership, communications, conflict mitigation and management, and the decision-making process.

# **HDQs Operations Mgmt cont.**

Course Objectives: Upon completion of this course the student will be able to:

- Identify the responsibilities of working with office managers and supervisors
- Explain basic leadership concepts
- Apply basic decision-making concepts
- Apply team development, situational skills and associated leadership techniques
- · Work effectively within the labor-management agreement
- Lead a diverse work team
- Mitigate conflict within the working environment
- Solve personnel and administrative problems
- Set and maintain high performance standards in the workplace
- Required Pre-requisites: Specific course requirements and materials will be provided to
  participants with the selection letter and welcome packet approximately six weeks before the
  course. The non-residence segment of this course begins after receiving the welcome letter. Nonresidence prerequisite work requires the completion of (time estimates in parenthesis):
  - Reading Strengths Based Leadership (two hours)
  - Completing the online Strength Finders assessment (20 minutes)
  - Completing the online Situational Team Leadership assessment (15 minutes)
  - Completing a one-page team writing assignment

## Meteorology and Hydrology Training Requirements

- Organized by Job Function
- Focused on performance improvement not education levels or certification
- Training is available via distance learning.
- http://www.nws.noaa.gov/training/pds.php

## **NWS Training Portal**

#### http://www.nws.noaa.gov/training/

- One-stop shopping.
- Provides access to all NWS, COMET, VISIT training, including and NOAA training.
- Includes course listings, course descriptions, training schedules, implementation plans and online materials

ww.nws. <b>noaa.gov</b> /training/		🚖 ⊽ C 🖁 🚼 ד Google	
NUAR	National Weather Service Training Portal	١	Bookn
NWS Personnel Training Implementation Plan Residence & Virtual Courses Learning Center Topics - Web-based, D/L (requires login) Job Aids, Downloads, & Other References	NWS Training Portal Welcome to the NWS Training Portal! This portal is designed to provide access to all NWS training, including course listings, course descriptions, training schedules, and online materials. Our goal is to provide you with one stop shopping for training! If you have suggestions for improvements, or note any errors, please use the webmasters link at the bottom of the page to share them with the Portal team. You may now subscribe to our RSS feed IMME, For information on RSS you can visit the <u>NWS RSS Library</u> .	Training Events Planning Calendar Verbased Training Release Dates	1
PDS Page IDP Guide Training Directives	News & Announcements         E           • COMET has announced the publication of <u>Quality Management Systems:</u> Implementation in Meteorological Services. To access this one-hour module in	Upcoming Training Events Today  Monday, May 14	
Welcome to the NWS Partners & Volunteers NWS Cooperative Observer Program	<ul> <li>the NWS Learning Center, <u>click here</u>: (05/07/12)</li> <li>2012 Tropical Training for forecasters as well as for ITOs/GFE focal points is now available. Please visit the NWS Learning Center's <u>Tropical Training Page</u> for details. (05/03/12)</li> </ul>	AWOC Severe Forecast Challeng Convective Downbursts Teletrainin Wednesday, May 16 Dual-Pol Warm Up Training - WD Synthetic Imagery in Analyzing L	
Educators Emergency Managers Weather Spotters	<ul> <li>VISIT has announced their <u>schedule of live teletraining sessions</u> through May 2012. All VISIT teletraining is listed on the <u>Training Events Planning Calendar</u> (04/23/12)</li> </ul>	Thursday, May 17 POES and AVHRR Data in AWF Monday, May 21 AWOC Severe Forecast Challenc	
Government Leaders (Leadership Academy)	COMET has published two new modules. The first is titled <u>Satellite Feature</u>	Tuesday, May 22 AWOC Core 3, Lesson 3 Teletraii Mesoscale Convective Vortices Ti	
Partner Organizations			

## **Professional Development Series (PDS)**

- Description of the job duty competency to be achieved
- Description of need for the job duty
- Required skills and knowledge for the job
- Instruction components
- Evaluation measures

- Aviation
- Climate
- <u>Emergency Response</u> <u>Specialist</u>
- Fire Weather
- <u>Hydrology</u>
- Marine
- Severe Convection
- <u>Tropical</u>
- Winter Weather TBD

# **Convective PDS**

News

Organizati

**National Weather Service** 

Warning Decision Training Branch

Site Map

#### WDTB Home

Courses FY09 Schedule FY10 Schedule DLOC AWOC

**Build Updates** Contents RPG Builds RDA Builds AWIPS TDWR

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Tools BUFKIT WES VCP Explorer Contents

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Other Navigation

Links Site Map

USA.gov

National Weather Sevice **Professional Development Series** 

#### Severe Convection Forecasting and Warnings

Executive Producer: Ed Mahoney, WDTB

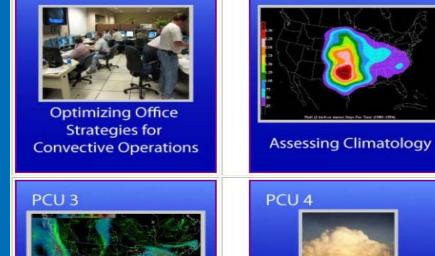
There are two main goals of the Professional Development Series (PDS) on Severe Convective Forecasting and Warnings. The first goal is to outline the scientific process and provide suggested job tasks or methodologies that should be employed in the forecasting of severe convection. The second goal is to provide a guide to current convective-related training material which addresses specific job skills needed to issue severe warnings for convective weather.

#### **Professional Competency Units**

This PDS includes nine Professional Competency Units (PCUs) as seen listed below. Click on a unit to view the details.

#### PCU 1: Optimizing Office Strategies for Convective Operations

- PCU 2: Assessing Climatology
- PCU 3: Assessing the Synoptic Environment
- PCU 4: Analyzing and Assessing the Mesoscale Environment
- PCU 5: Analyzing the Structure of Convective Storms
- PCU 6: The Warning Decision
- PCU 7: Composing and Disseminating the Convective Warning Products
- PCU 8: Monitoring the Convective Warning Operations
- PCU 9: Post-Event Assessment



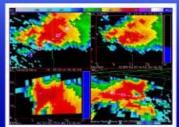
# PCU 4

PCU 2

Assessing the Synoptic Environment

#### PCU 5

PCU 1



Analyzing the Structure of Convective Storms

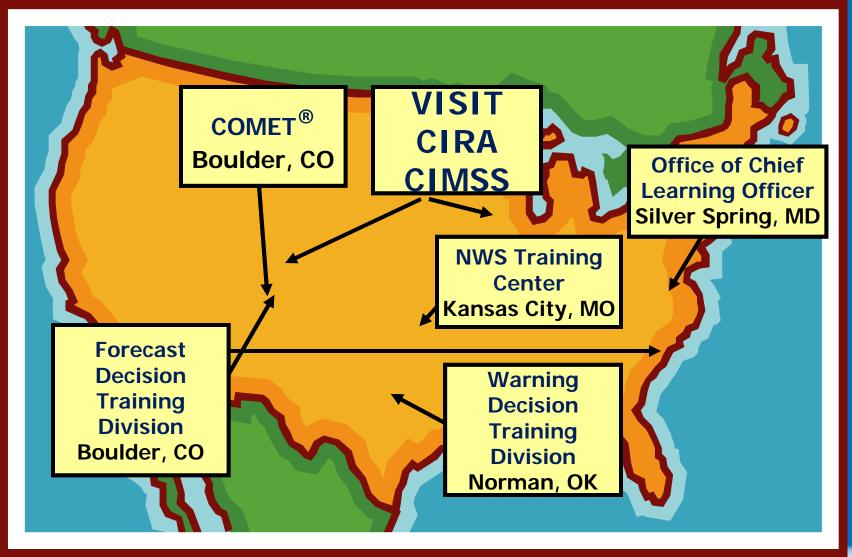
#### Analyzing and Assessing the Mesoscale Environment

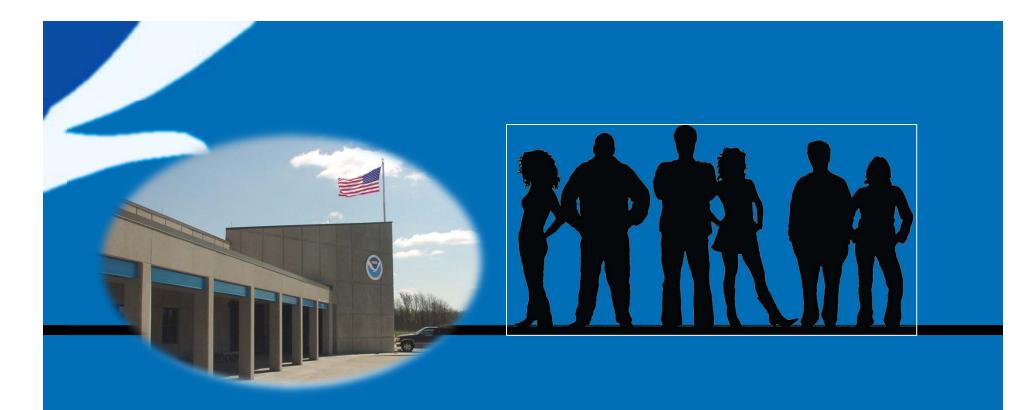
#### PCU 6



The Warning Decision

#### **A Collaborative Training Community**





# National Weather Service Training Center

Protecting Readiness - Preserving Values - Pioneering Solutions - Partnering Progress - Promoting People

### **NWSTC - What We Do**



# **Engineering, Electronics & IT**



# Decision Support and Communications Division



#### **Job-Focused Distance Learning**



WMO/NWS Joint – Space Weather Products and User Training

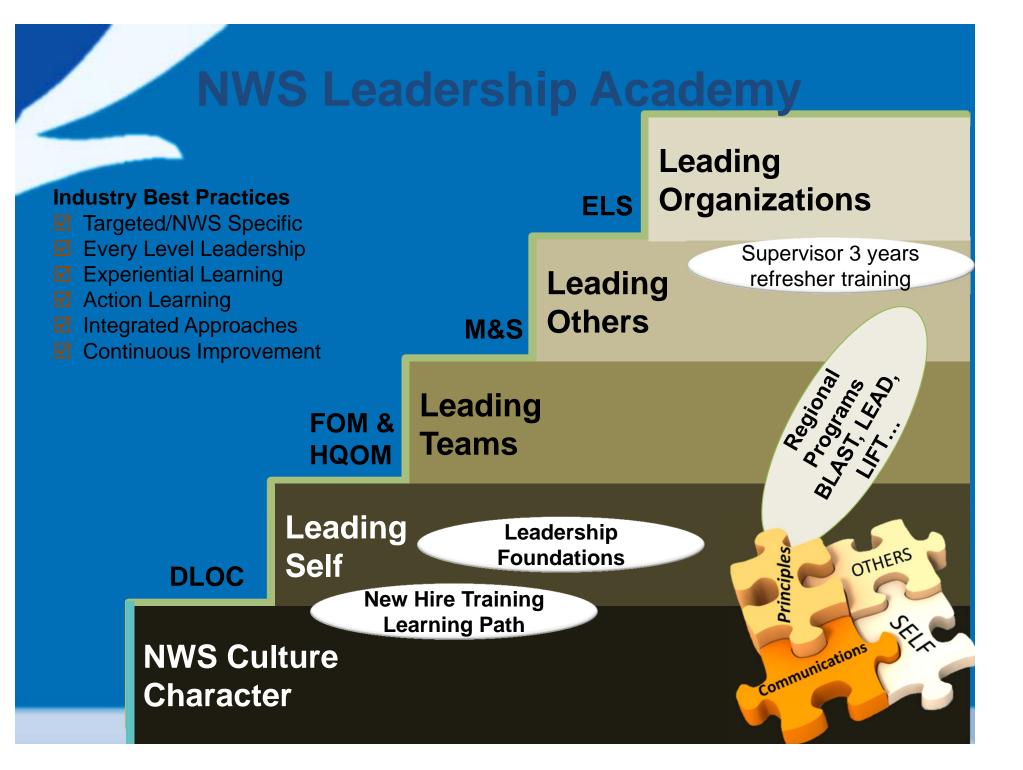


# Distance Learning SupportSafety and EnvironmentalCompliance

**Sponsorship of Foreign Nationals** 



NWS Media Training for all NWS staff Welcome to NWS module



## Warning Decision Training Division (WDTD) Norman, OK National Weather Service "Transferring Knowledge into Warning Performance"



# WDTD's Mission - Impact Warning Performance -

7 of 14 NWS GPRA\* Goals Address Warning Operations

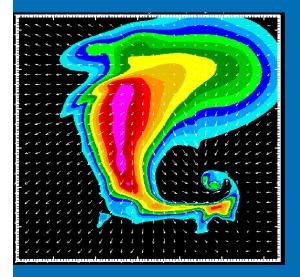
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1)		larning -		
• /				

- 2) Tornado Warning Accuracy
- **3** Tornado Warning False Alarm Ratio
- 4) Flash Flood Warning Lead Time
- 5) Flash Flood Warning Accuracy
- 6) Winter Storm Warning Lead Time
- 7) Winter Storm Warning Accuracy
- 8) Hurricane Track Forecasts (48 Hrs)
- 9) Aviation Forecast Accuracy
- **10)** Aviation Forecasts False Alarm Ratio
- 11) U.S. Seasonal Temperature Skill
- **12) Precipitation Forecast Day 3 Accuracy**
- **13)** Marine Wind Speed Accuracy
- **14)** Marine Wave Height Accuracy

\*Government Performance Review Act (GPRA) of 1993

## What Do We Train?

#### Science



#### Technology



Human Factors

> DON'T WARN

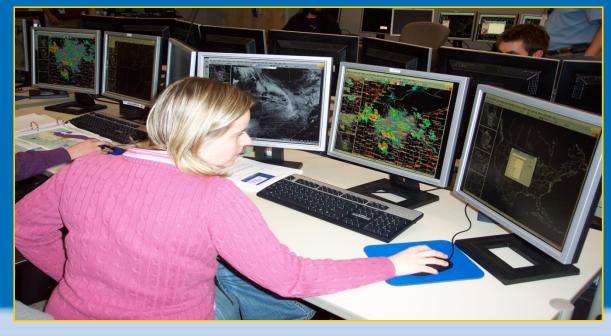
WARN

## **Simulations Improve Performance**

#### • Simulators

- Department of Defense
- NASA
- All Major Airlines
- Flight Schools







#### eather Event Simulator (WES) Exercises

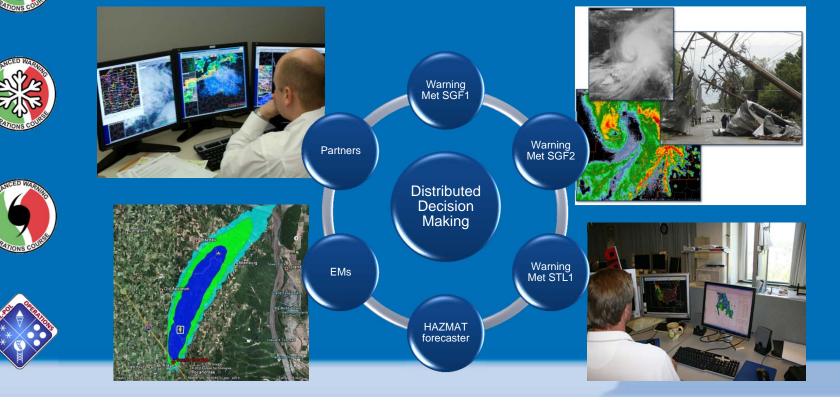
• Build NWS preparedness.



• Build forecaster expertise to identify and assess threats.







#### **Initial Warning Operations Course...Now** 3X the Simulations in <sup>1</sup>/<sub>4</sub> the Classroom Time

- 64 Hours of Blended
   Distance Learning
- 5-Day Workshop

FORECAST & WARNING

COURS

• 25 Hours of Simulation Exercises Distance Learning Operations Course



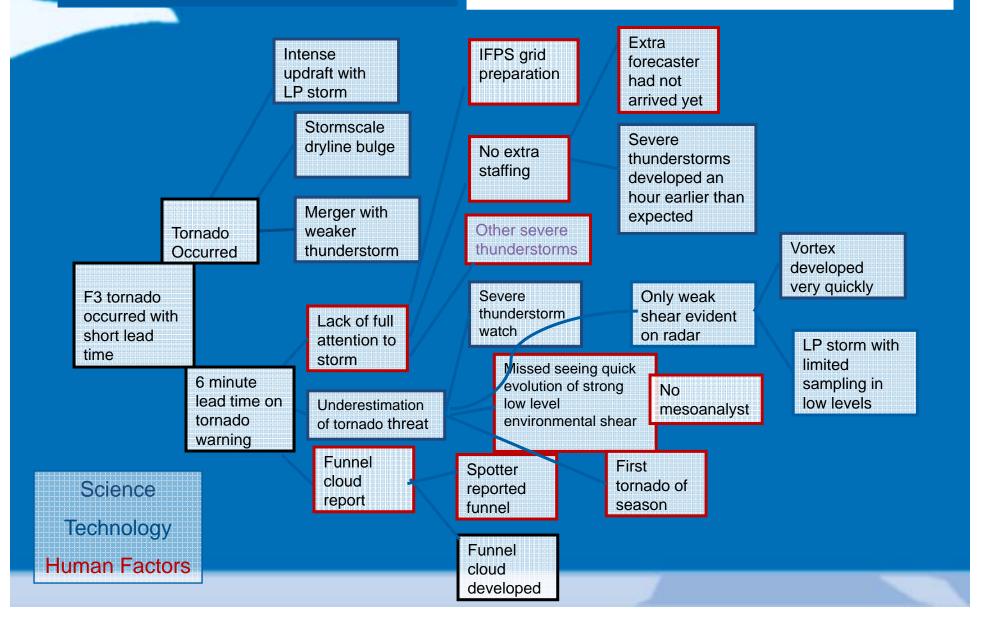
Topic 1: Radar & Warning Applications in AWIPS

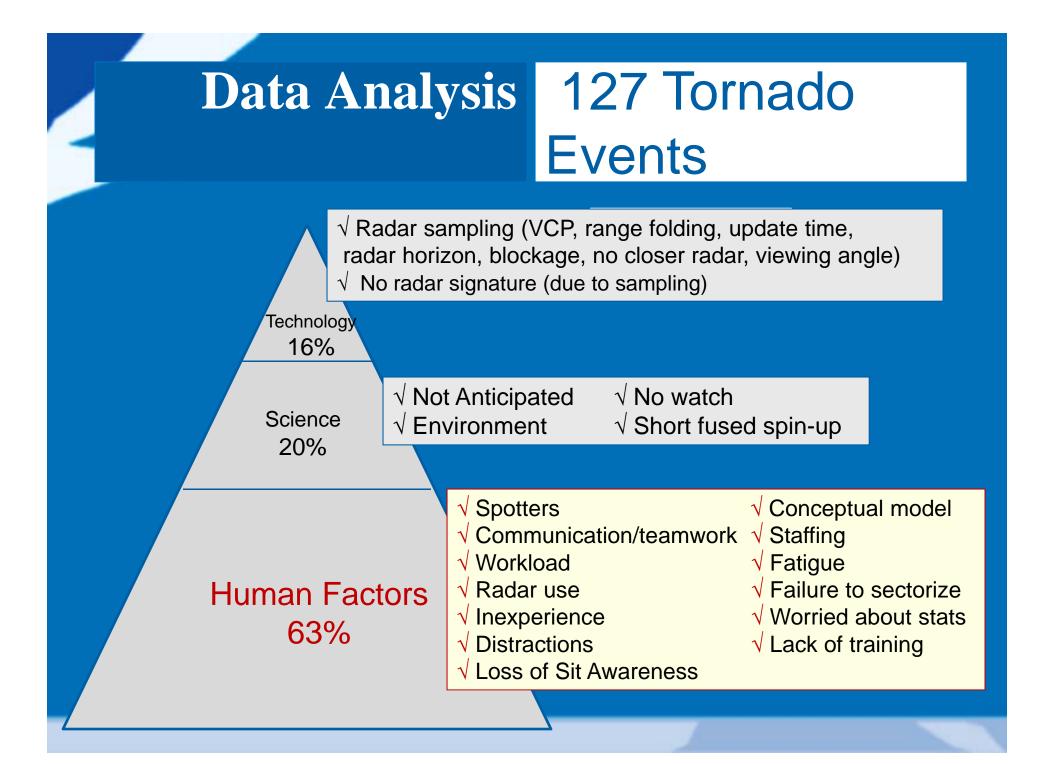






# Root Cause One actual event submitted to Advanced Warning Operations Course





## Forecast Decision Training Division – Boulder, CO

#### Forecast Decision Training Branch

- > Workstation WRF support
- > AWIPS II Build training
- Hydrology/Datum GIS training
- Satellite Remote Sensing Training
- Collocated with COMET®

 VISIT – Virtual Institute for Satellite Integration Training

## **orecast Decision Training Division**

National hydrology, geospatial training and support. Collocated with COMET® Program.

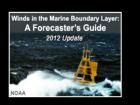
- Marine, Aviation and Hydrology training development and Professional Development Series (PDS) facilitation.
- Tropical Weather PDS support and training.
- AWIPS-2 User Training.
- National SOO Science and training support.
- Numerical Weather Prediction (NWP) operational training.
- Lead NWS Satellite Training Program

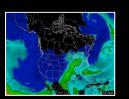
- Virtual Institute for Satellite Integration Training (VISIT) Program

- NOAA/NWS Satellite Proving Ground







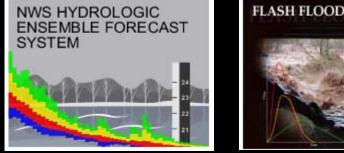




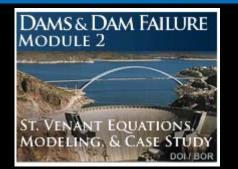
## **Hydrology Training Activities**

National hydrology, geospatial training and support:

- Hydrology Professional Development Series team members.
- Flash Flood virtual workshop subject matter experts.
- Online development of hydrology and geospatial modules.
- NWS Geospatial Integrated Work Team member.









## **Marine Training Activities**

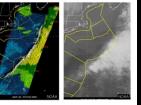
National marine training and support:

- Facilitation role for Marine Professional Development Series (nearing completion).
- Training developed for Remotely Sensed Ocean Surface Vector Winds (QuikSCAT, ASCAT).
- Training on operational use of Nearshore Wave Prediction System .

#### ASCAT Winds

By Ross Van Til Forecast Decision Training Branch

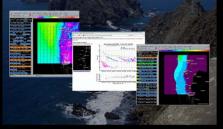
Contributions by: Joe Sienkiewicz, OPC Hugh Cobb, TPC James Franklin, NHC Michael Brennan, NHC Rick Knabb, WFO Honolul Paul Chang, NESDIS Zorana Jelenak, NESDIS



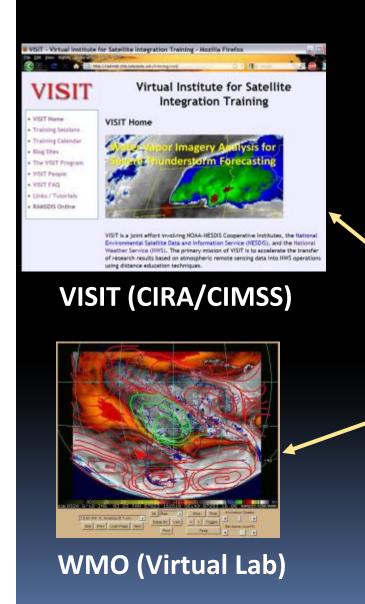




Operational Use of the Nearshore Wave Prediction System (NWPS)



### Working Together for Satellite Training



EUMETSAT, NASA/SPoRT, Canada, DOD...



MetEd

odule Listing + Module Description

take the pair Rugie Lais

-

#### **UCAR/COMET®**

**Satellite & NWS** Proving Grounds



**Users & Developers** 



**NWS Training Division & SOOs** 

## WRF

# **Environmental Modeling System**

- WRF EMS is a complete, full physics, end-toend NWP forecasting system.
- Designed to facilitate installation, configuration, and execution of a local area model.
  - Little or no modeling experience necessary
- Solves a long-standing problem with real-time model initialization due to bandwidth limitations.

#### **COMET® - Award Winning Program**



2004 Louis J. Battan Authors Award, K-12 Category for *Hurricane Strike*!™



2000 Hurricane Conference Outstanding Achievement Award for *Community Hurricane Preparedness* 





For Polar Lows Ungava Bay 01 December 2000



American Geophysical Union Excellence in Geophysical Education Award 2006

2005 Honorable Mention in the non-interactive media category of the Science & Engineering Visualization Challenge



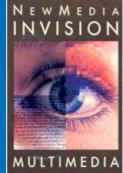
2009 National Weather Association Public Education Award



2008 NSF and the Journal Science International Science & Engineering Visualization Challenge: Semi-Finalist



Finalist Recognition International Science & Engineering Visualization Challenge 2009



A W A R D S 1 9 9 4

Bronze Medal for Boundary Detection & Convection Initiation

#### MetEd – 290,000 Users www.meted.edu

Over 900 Hours Published MetEd Website Major Upgrade

Flash Flood Hydrology and QPE residence course scored second consecutive 5.0 out of 5.0

Published NWP Course 2: Using and Adding Value to NWP in the Forecast Process

Completed 2<sup>nd</sup> edition of *Tropical Textbook* with new chapter and full Spanish translation Produced two short, just-intime NWP Training Videos for model implementations (HRRR, GFS)

Published Volcanic Ash: Science, Impacts, and Forecasting Course (Aviation)

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## **Standardized Spotter Training Completions** — Database sent monthly to WCMs

Begin »

MetEd Home COMET Home

Print Version

# Role of the SKYWARN<sup>\*</sup> Spotter





13-18 19-24 25-31 32-38 39-46 47-54 55-63

Beaufort Wind Scale



#### SKYWARN<sup>\*</sup> Spotter Convective Basics

11 -



©The COMET Progra



#### Begin »

MetEd Home COMET Home

Print Version Download Version Module Quiz User Survey Takeaways Contributors Tech Notes

#### LESSON FROM FLIGHT 1549

"Training is a line item that's easy to whack when budgets get tight, because it's not always easy to see its immediate payoff.

That misses the point, however.

Training is about getting people ready to execute and put their training to the test when the organization needs it the most." -- Chesley Burnett "Sully" Sullenberger III

Workforce Management Feb 2009