



# WDTB Dual-Polarization Training News

To support the WSR-88D Dual-Polarization upgrade deployment, WDTB has prepared operational training designed for NWS decision makers.

There are two NWS courses available, with associated Development Plans. In order to make the completion of either of the two Dual-Polarization courses part of an individual's permanent record, NWS staff must complete the course through the NWS Learning Center. WDTB will provide tracking of the Dual-Polarization Radar Operations Course, and will award certificates upon completion.

## Development Plan #1: Dual-Polarization Radar Operations Course

### Course Requirements:

- Overview lesson
- 6 Product modules
- 6 Applications modules
- 2 of 4 WES Exercises

### Suggested Audience:

All NWS Decision Makers

## Development Plan #2: Dual-Polarization Radar Principles and System Operations

### Course Requirements:

- 2 RDA modules
- 3 RPG modules

### Suggested Audience:

SOOs, Radar Focal Points, and others by local office determination

These two different courses are composed of several individual elements. More information on each of these training elements, including expected duration and intended audience, are provided at the end of this document.

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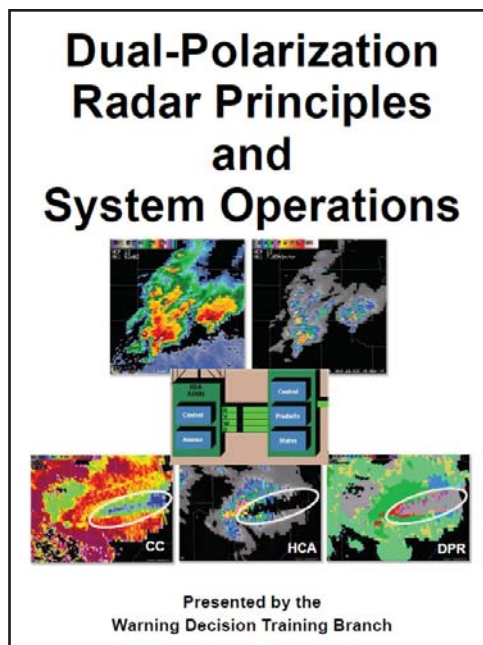
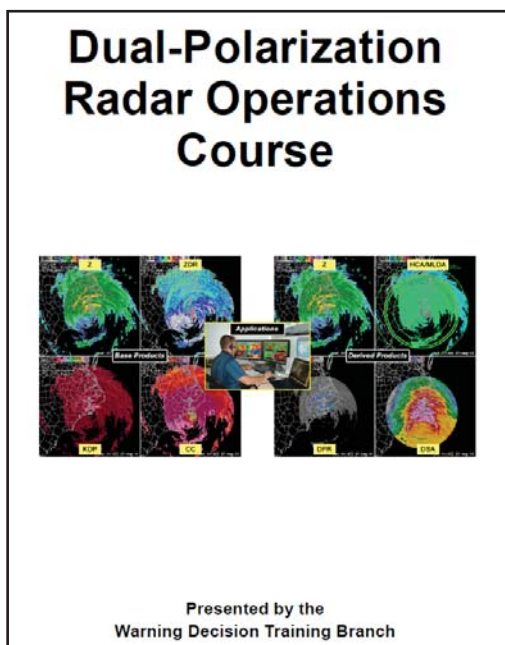
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### WDTB DUAL-POL TEAM:

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3. Student guide documents for both NWS courses are available for download:



## Webinars

WDTB will provide two types of webinars to support the deployment process. There are monthly “Dual-Pol Warmup Training” webinars designed for beginners. As significant events occur, webinars will be scheduled to provide a more advanced discussion on the use of Dual-Pol data. WFOs are encouraged to contact WDTB (see below) if they see something of interest!

All webinar schedules will be released through the regions....watch for WDTB announcements!!

## NWSChat & E-mail

WDTB instructors are also available to help answer dual-polarization radar questions or address any issues with these two courses. We regularly have staff available on NWSChat in either the “wdtbchat” or “rocchat” chat rooms Monday through Friday between 8 am and 5 pm. You can also e-mail the WDTB dual-pol training team with and questions, comments, or issues at: [dualpol\\_list@wdtb.noaa.gov](mailto:dualpol_list@wdtb.noaa.gov).

Dual-Polarization Training Modules		Duration (min)
<b>Operations Course Overview</b>		<b>15</b>
Dual-Polarization Radar Principles and System Operations: RDA		
Lesson 1: Generation of Dual-Pol Variables		30-40
Lesson 2: Sensitivity, Calibration, Attenuation, Non-Uniform Beam Filling		35-45
Dual-Polarization Radar Principles and System Operations: RPG		
Lesson 1: Life Without Clutter Mitigation & Decision (CMD) Algorithm, Dual-Pol Preprocessing Algorithm		30-40
Lesson 2: Melting Layer Detection Algorithm (MLDA), and Hydrometeor Classification Algorithm		40-50
Lesson 3: Quantitative Precipitation Estimation (QPE) Algorithm		35-45
Dual-Polarization Radar Products:		
Lesson 1: Correlation Coefficient (CC)		20-30
Lesson 2: Differential Reflectivity (ZDR)		25-35
Lesson 3: Specific Differential Phase (KDP)		25-35
Lesson 4: Hydrometeor Classification (HC)		20-30
Lesson 5: Melting Layer (ML)		20-30
Lesson 6: Dual-Pol QPE Products		20-30
Dual-Polarization Radar Applications:		
Lesson 1: Winter Weather		35-45
Lesson 2: Hail		25-35
Lesson 3: Tornado Debris Signature		20-30
Lesson 4: Updraft Detection/ZDR Columns		20-30
Lesson 5: Heavy Rain		25-35
Lesson 6: Non-Precipitation Echo Detection		20-30
Weather Event Simulator Exercises:		
Exercise 1: Winter Weather		
Analysis time		90
Answer keys		26
Exercise 2: Heavy Rain		
Analysis time		60
Answer keys		22
Exercise 3: Tornadoes and Hail		
Analysis time		100
Answer keys		60
Exercise 4: Bow Echo		
Analysis time		40
Answer keys		20

**Legend**

**Red**

**Blue**

**Suggested Audience:** All NWS Decision Makers

SOOs, Radar Focal Points, & others by local office determination