

**Fiscal Year 2010
IMPLEMENTATION PLAN FOR
NATIONAL WEATHER SERVICE TRAINING AND EDUCATION**

**In Support of
NOAA and National Weather Service Human Capital Strategic Plans and Goals
(7/1/09)**

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.”**

Workforce Management Feb 2009

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1. Executive Summary

This Implementation Plan is the guiding document for the national training and education activities within the [National Oceanic and Atmospheric Administration's \(NOAA's\) National Weather Service \(NWS\)](#) for Fiscal Year 2010 (referred to as FY10 herein). The purpose of this plan is to specify the expected national training activities necessary to support the wide range of mission critical operations. It will be coordinated and executed by the [Office of Climate, Water, and Weather Services \(OCWWS\), Training Division](#) (TD) for FY10. It includes detailed resource cost analyses including allocations for Division full-time equivalent (FTE) time and course dollar costs, as well as the unfunded training gap requirements.

The FY10 budget of \$10.5 million funded 83 of 141 (58%) National Strategic Training and Education Plan (NSTEP) process derived requirements [See Figure 5 in Appendix 6 for programmatic funding distribution] . This is a direct result of limited resources due to lack of funding or FTEs. The process facilitates both mandated requirements such as Occupational Safety and Health Administration safety training, and the highest priority training needs identified. Prioritization of training needs is determined independent of financial and manpower limitation while recommended solutions were based on assumed FY 2009 level funding and the FY10 President's Budget (see Figure 1 below).

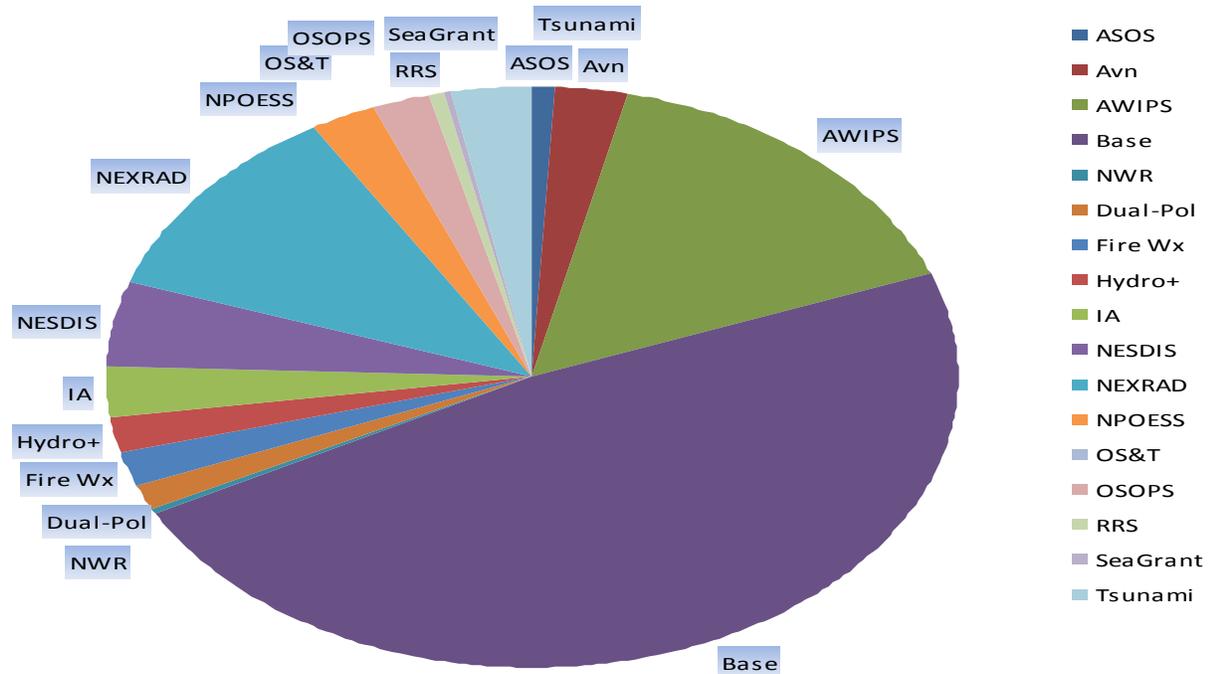


Figure 1: FY10 Training Spending Distribution from all Fund Sources

As the pace of science and technology change continues to increase, the ability to maintain a highly trained workforce may be compromised, as a result of constrained budget levels. Additionally, as the NWS develops and deploys new initiatives to enhance critical services, new training needs will be identified. Level Base funding [see Figure 4 in Appendix 6] reference and

the rise in training requirements increases the training gap, thereby putting the NWS mission at risk. Program funds only partially mitigate some impacts of continued level funding by supporting specific program needs for systems such as the Advanced Weather Interactive Processing System (AWIPS), Dual-Polarization (Dual-Pol) radar, the Automated Surface Observing System (ASOS) and the Radiosonde Replacement System (RRS). The [Workforce Human Capital Committee \(WHCC\) Annual Operating Plan](#) states under ED3: “Require Training Division signoff on training adequacy before implementing new systems or major upgrades using the [Operations and Services Improvement Process \(OSIP\)](#) [[NWS Instruction 10-103](#)].” This means the increasing gap could delay transferring new technology and equipment if training is not adequately resourced and subsequently the field not properly prepared.

2. National Strategic Training and Education Plan (NSTEP) Process

The FY 2010 Implementation Plan for NWS Training and Education (IP10) is the end result of the NSTEP process. The NSTEP Team’s Field Requirements Group (FRG), consisting of Regional Scientific Services Division (SSD) Chiefs/Regional Scientists or their designate(s), and the Operations Officer for the National Centers for Environmental Prediction (NCEP), prioritized FY10 training requirements. The Heads of Training Group (HOTG), composed of the Directors of the [NWS Training Center \(NWSTC\)](#), the [Forecast Decision Training Branch \(FDTB\)](#), the [Warning Decision Training Branch \(WDTB\)](#), and the [Cooperative Program for Operational Meteorology, Education, and Training \(COMET\)](#), recommended the execution methods of the prioritized training requirements, taking into account available FTE and non-FTE staff resources (Figure 2). FY10 training requirements were determined and prioritized during a series of meetings and conference calls which included the OCWWS NSTEP Program Leader, the FRG, HOTG, designates of select [NOAA Planning, Programming, Budgeting and Execution System \(PPBES\)](#) program managers, and other training representatives.

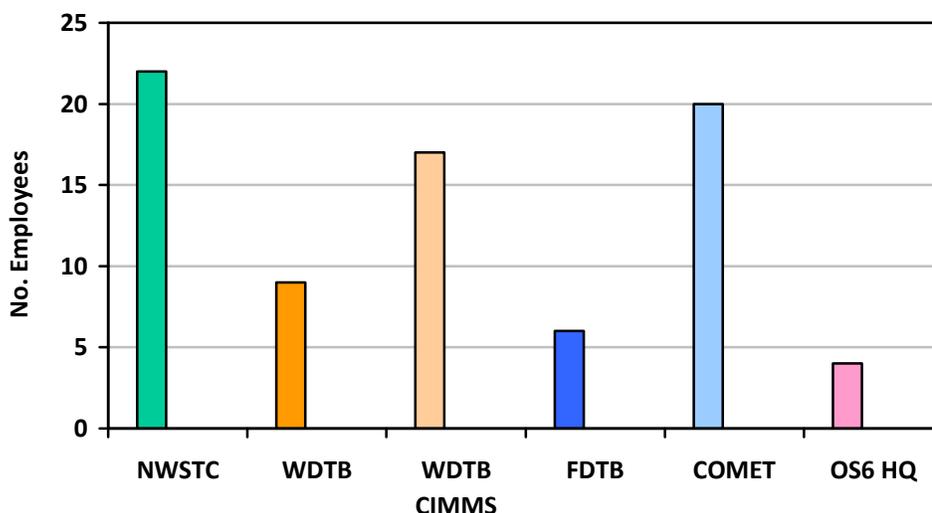


Figure 2: FY10 Available Training Staff:
Staffing: 17 WDTB CIMMS, 20 COMET (NWS funded), 41 Federal:
78 total FTEs

The FY10 NSTEP process began with soliciting training requirements submitted in the form of a Performance Needs Statement (PNS). A total of 141 PNSs were submitted for both existing and new training requirements. The HOTG analyzed all 141 PNSs to determine the best delivery method [in-residence, distance learning (DL), blended, etc., along with the training needs analysis]. Based on the HOTG analyses and the priority guidance listed below, the FRG proposed which training activities would be conducted using available funding and TD FTE resources.

3. Mission Impact / Stakeholder Role

With major deployments of new software and equipment continuing (i.e., AWIPS Migration, wind profiler, Dual-Pol, Weather Radio Improvement Plan (WRIP), etc.), providing the necessary training to the workforce is a mission imperative. However, the total unfunded, mission critical, training activities projected for FY10 is \$6,079,000, \$960,000 higher than the level funded Base budget (Figure 3). This training gap of unfunded needs continues to compromise the NWS' ability to maintain a highly trained workforce and could also impact the agency's ability to meet NWS Government Performance and Results Act (GPRA) measures and NOAA Strategic goals. Most of the new requirements and some existing training were not funded or funded at significantly reduced levels. It is hoped that FY09 Priority Reserve List (PRL) funds in which the WFO/RFC training was ranked as the top priority by the NWS Corporate Board's Investment Assessment Team (IAT) will become available to address some of these shortfalls.

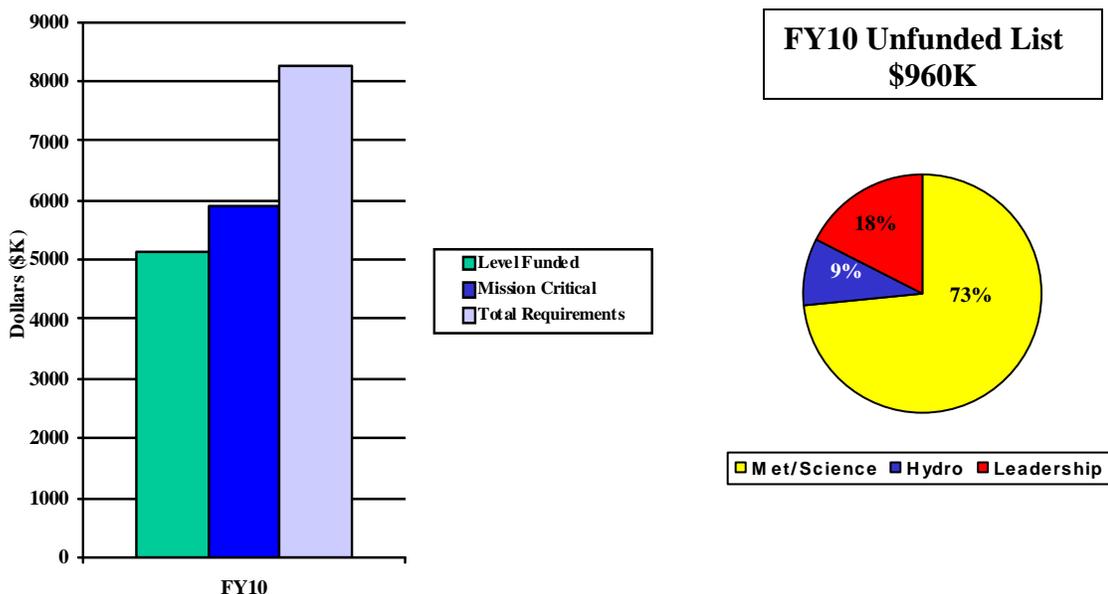


Figure 3: FY10 Base NSTEP Funds – Level-Funded vs. Mission-Centered Budget

Please see Table 8 for a prioritized list of mission critical, unfunded FY10 training requirements, as well as a listing of further FY10 funding requirements.

In order for the NWS workforce to become proficient with the expanding technology to be deployed in FY10 and beyond, trainers and management stakeholders need to consider human factors above and beyond the provision of knowledge and skills. To maximize learning and transfer of the training to job operations, the NWS TD recommends key stakeholders, such as regional SSD Chiefs and local office management, and training providers work to develop implementation strategies to achieve the highest possible return on the training investment.

4. Appendices: FY10 Training Activities

Appendices 1 through 4 spell out the training deliverables to be accomplished in FY10. These deliverables are delineated by the TD branch or COMET which is responsible for coordinating each training activity. New training activities for FY10 are noted in italics. References to the appropriate funding tables are also cited. Appendix 5 denotes major training activities planned in FY11.

Appendix 6 contains informational Figures 4, 5, and 6. Figure 4 is a yearly breakout of AWIPS and Base funding allocations to NWS training. Figure 5 is a breakout of IP10 funding spending across major program areas. Figure 6 is a breakout of the number of Web-based and instructor led training completions from May 15, 2008 through May 15, 2009.

Appendix 1: OCWWS Training Division (OS6) Managed Funding – Table 1

I. TD Infrastructure Items

- Administrative Budgets for TD Branches (NWS Headquarters, NWSTC, FDTB, and WDTB): Provides day-to-day operating funds.
- [American Meteorological Society \(AMS\)](#) Journal Access: TD annually pays for NWS electronic access to three AMS online journals: [Monthly Weather Review](#), [Weather and Forecasting](#), and a new journal – [Weather, Climate, and Society](#), which will begin publication in the fall of calendar year 2009.
- NWS Learning Management System (LMS) Charges: TD pays for the [NWS LEARN Center](#) on the [Department of Commerce Learning Center \(CLC\)](#) in addition to redirecting the work of two TD instructors. Funds are set aside for system administration support CIMMS staff at WDTB. Funds are also allocated for LMS system administrators at NWSTC and WDTB to support LMS-related activities.
- Telecommunications Charges: Pays for Division conference call costs.
- GoToMeeting Licenses: Funding is provided for TD [GoToMeeting](#) license costs, which are managed by WDTB.
- [COMET](#) Grant Core Funding: Per NOAA cooperative agreement with the [University Corporation for Atmospheric Research \(UCAR\)](#), TD annually provides the core funding for the COMET Program. This funding supports the following costs:
 - Infrastructure and administrative costs
 - A specialized DL training team delivering Web-based training modules
 - Support for the COMET [Meteorology, Education, and Training \(MetEd\)](#) Website
 - Support for NOAA/NWS residence training
- Annual NSTEP Meetings: Travel funds are set aside for annual NSTEP meetings. NSTEP travel is minimized by conducting weekly teleconferences and holding meetings at a training branch facility.
- HOTG Meetings: Travel funds are set aside for annual HOTG meetings. HOTG travel is minimized by conducting weekly teleconferences and holding meetings at a training branch facility.
- AWIPS / Numerical Weather Prediction (NWP) Development: The AWIPS program funds two project scientists through UCAR to develop and conduct NWP training for new AWIPS Builds, and WDTB staff for developing NWP WES cases.
- VISIT Salaries: TD provides funds for staff at the [Virtual Institute for Satellite Integration \(VISIT\)](#) in Fort Collins, CO and Madison, WI. VISIT is a joint effort involving NOAA-National Environmental Satellite Data and Information Service

(NESDIS) and the NWS to accelerate the transfer of research results based on space based remote sensing data into NWS operations using DL techniques.

- International Weather and Water Leadership: Each year, there are unforeseen training needs and requests for TD. For instance, TD has often been asked by the NWS [International Activities Office](#) to support visiting foreign delegations. To be better prepared for this, funding and/or FTE resources are set aside at NWSTC, FDTB and WDTB to quickly respond to these needs and requests.

II. Other TD-Managed Funds

- Incident Meteorologist (IMET) Workshop: NWS policy mandates that IMETs receive yearly training to fulfill their duties in the NWS and within NOAA. This is an annual workshop hosted in Boise, ID by the [OCWWS Fire and Public Weather Services Branch](#).
- CPR/First Aid Training: Provides funds to the NWS Regional Headquarters to fund cardiopulmonary resuscitation (CPR)/first aid training at their local offices through the American Red Cross or American Heart Association.
- River Forecast Center (RFC) Workshops: Coordinated by the [OCWWS Hydrologic Services Division](#), these workshops provide training for RFC staff focused on operational tools and techniques.
- [Community Hydrologic Prediction System \(CHPS\) Training](#): Provides setup and configuration training to RFCs as CHPS is deployed to replace the existing NWS River Forecast System (NWSRFS).
- Pacific Region Operational Climate Course: Funds are allocated to hold a Climate Services Operations course in Hawaii. This is a cost-sharing effort between NSTEP and Pacific Region Headquarters.
- Regional Training Funds: A small portion of NSTEP Base and AWIPS training funds are allocated directly to the Regions for their use. These are often the only available resource to meet unique training requirements in mission-critical areas such as IT and project management.

Appendix 2: [NWS Training Center Training](#) – Table 2

I. In-Residence Training – See Table 6 for detailed information

The NWS Training Center (NWSTC) hosts the following residence training courses:

- **AWIPS:**
 - *AWIPS Migration System Administration Deployment:* Provides AWIPS Migration, Version 1 system administrator training.
 - *AWIPS Migration OT&E System Administration Deployment:* Provides AWIPS Migration Operational Test and Evaluation (OT&E) System Administrator (SA) support training prior to the beginning of Field OT&E.
 - *AWIPS Migration Local Applications Development*

- **Maintenance:**
 - [Automated Surface Observing System \(ASOS\) Maintenance](#)
 - [Automated Radio Theodolite \(ART\) Rawinsonde System Maintenance](#)
 - [Console Replacement System \(CRS\) Maintenance](#)
 - [CRS Maintenance](#)
 - [NOAA Weather Radio \(NWR\) Armstrong Transmitter Maintenance](#)
 - [NWR Crown Transmitter Maintenance](#)
 - [NWS Doppler Weather Radar \(WSR-88D\) Maintenance](#)
 - [WSR-88D Open Systems Radar Data Acquisition \(ORDA\) Maintenance](#)
 - [WSR-88D Refresher Training](#)
 - [Radiosonde Replacement System \(RRS\) Maintenance:](#) Training will be offered in support of RRS deployments (funded by the RRS Program), as well as attrition training (funded by NSTEP).
 - **NWR NuTel Transmitter Maintenance:** The NWR Program Office will provide funds for training and development in support of the deployment of the NuTel NWR transmitter.

- **Safety/Environmental:**
 - [Safety Training](#)
 - [Environmental Compliance](#)
 - [Fall Protection and Rescue \(initial/attrition\)](#)
 - [Fall Protection and Rescue \(re-certification\)](#)
 - **NOTE:** To save costs, there are Fall Protection and Rescue Recertification training classes held in Alaska and Pacific Regions, and at the National Data Buoy Center in Stennis, MS, with the other classes held at the NWSTC.

- **Hydrology:**
 - [Advanced Hydro Applications](#)
 - [WFO Hydrology Program Management](#)

- Information Technology:
 - [Linux Administration for WFOs/RFCs](#)
 - [CRS Network Operations](#)

- Management and Leadership - [Leadership Academy](#):
 - [Management and Supervision](#)
 - [Field Operations Management](#)
 - [Executive Leadership Seminar \(ELS\)](#)
 - Note: Field Operations Management is open to all staff regardless of bargaining unit status, whereas Management and Supervision and ELS are only open to non-bargaining unit personnel.

- Observation and Data Acquisition:
 - [Data Acquisition and Operations \(DATAAC\)](#)
 - [Cooperative Network Operations](#)

II. Distance Learning Training Activities:

- AWIPS:
 - AWIPS Migration Variance Training (WDTB and FDTB assists): Develop and deliver distance learning modules as necessary to address identified variances in the user interface as AWIPS-I is updated to AWIPS Migration.
 - AWIPS Migration Focal Point Deployment (WDTB assists): Produce distance learning training modules covering AWIPS Migration baseline application configuration, localization and templates.
 - AWIPS Migration Local Applications Development

- Hydrology:
 - WFO Hydromet DL Modules (AWIPS-I): Provides training on changes in AWIPS hydrometeorology tools with Operational Build (OB) release changes and additions in capabilities for Weather Forecast Offices (WFOs).
 - RFC Hydromet DL Modules (AWIPS-I): Provides training on changes in AWIPS hydrometeorology tools with Operational Build (OB) release changes and additions in capabilities for RFCs.
 - AWIPS/Graphical Forecast Editor (GFE) Training for RFCs: Includes specific training on the setup and use of the GFE, with emphasis on issues specific to RFC operations and domain size.
 - AWIPS Hydrometeorology Software Update Training (AWIPS-I): Provides training to address changes in hydrometeorology (e.g., Flash Flood Monitoring and Prediction (FFMP)) with OB release changes and additional capabilities.

- Information Technology:
 - [Introduction to NWS Systems](#) DL course

- Program Deployment Support:
 - Wind Profiler Deployment Support
 - Weather Radio Improvement Plan (WRIP) Deployment Support
 - Transition Power and Maintenance Shelter (TPMS) maintenance: Funds to send selected electronics staff to a vendor course – Powerware Maintenance - to competently and safely maintain the WSR-88D TPMS Uninterruptable Power System (UPS).
 - Dual-Pol Development Support: Ensures Dual-Pol technical support of system development and training material development.
 - Training Web Portal Development and LMS Integration (WDTB and FDTB assist): Provides funds to build a single NWS TD Web portal and integrate it into the existing LMS.

Appendix 3: Warning Decision Training Branch (WDTB) ***Training – Table 3***

I. Distance Learning Training Activities:

- AWIPS:
 - [AWIPS Warning-Related Delta Training](#)
 - [Weather Event Simulator \(WES\)](#) Development and Support:
 - WES-II Bridge for AWIPS Migration: Continues to provide resources for design and initial development work.
 - WES Logistics Support Funds: Provides funds to sites that require replacement parts for the current WES. The AWIPS Program Office has agreed to the replacement of WES hardware in conjunction with WES incorporation into the baseline of AWIPS Migration.
 - Warning Related Job Sheets for AWIPS: WDTB will modify some of its existing training materials to allow for easier just-in-time learning applications, including checklists and integrated practice of selected WDTB supported applications.
 - *Introduction to the Next Generation Warning Tool* (NGWT; NWSTC assists): A short Web module will address the rationale for the NGWT and introduce the design and uses of the NGWT application.

- Integrated Warning Process:
 - WSR-88D initial radar operator training via the [WSR-88D Distance Learning Operations Course \(DLOC\)](#).
 - [WSR-88D Radar Build Training](#) – DL training to allow forecasters to keep pace with WSR-88D software and hardware upgrades.
 - [Advanced Warning Operations Course \(AWOC\)](#). The Core, Severe and Winter Weather Tracks will be updated and offered.
 - Warning Best Practices Training: Based on the NWS Service Assessment, *Mother's Day Weekend Tornado May 10, 2008*, Recommendation 1B, WDTB will deliver DL training designed to share best practices and improve forecasters' ability to issue effective storm-based warnings.
 - Using the Integrated Warning Team to Improve Weather Warning Performance: Provides support for the 2010 Severe Weather Annual Workshop, and the continued development of modules for NWS forecasters and an education and outreach module for NWS Warning Coordination Meteorologists (WCMS). This effort continues to be supported by the NOAA SeaGrant program.

- Dual-Polarization (Dual-Pol) Upgrade to the WSR-88D: (*See <http://www.wdtb.noaa.gov/modules/dualpol/index.htm> for more information*)

- Dual-Pol Operations Course: To be primarily delivered as online modules through the LMS with support from local facilitators, the course will address principles of Dual-Pol radar, products, and other related science and application.
- Dual-Pol education and outreach: Provide Web-based module(s) addressing the capabilities and limitations of the various WSR-88D Dual-Pol products which will be made available to the public.

II. Other Training Activities:

- *Minimizing Impacts of Wind Turbine Farms on Forecast and Warning Operations:* Working with the Radar Operations Center, a DL module will identify the operational problems of wind turbine farm impacts on WSR-88D radar data.
- Instructional Design Support for Numerical Weather Prediction Training: WDTB will continue to provide WES simulations in support of NWP training being developed by COMET/FDTB.

**Appendix 4: [Forecast Decision Training Branch \(FDTB\)](#)
Training - Table 4**

**[Cooperative Program for Meteorology, Education and
Training \(COMET\) Training – Table 5](#)**

I. Residence Training (COMET). See Table 6 for cost information.

- [Flash Flood/Quantitative Precipitation Estimation \(QPE\) Course](#): Focuses on the hydrology of flash floods. Held at COMET.
- [COMET Mesoscale Analysis and Prediction \(COMAP\) course](#): Provides new Science and Operations Officers (SOOs) an in-depth review of mesoscale meteorology. This is a blended learning course, with the in-residence portion held at COMET.
- [Meteorological Services of Canada \(MSC\)/COMET Winter Weather Workshop](#): Travel funds are provided for five NWS students and three NWS guest instructors participating in this MSC-funded course held at COMET.

II. Distance Learning Training:

- Aviation:
 - [Distance Learning Aviation Course \(DLAC\)-II: Building an Effective Terminal Aerodrome Forecast \(TAF\)](#): With funds provided by the [OCWWS Aviation Services Branch](#), COMET will produce a final DLAC-II module. Work will also begin on initiating the development of DLAC-III, with first two modules (*NWP for Aviation Forecasting* and *Effective Use of Observational Data*) scheduled to be developed and released in FY10.
- AWIPS:
 - Graphical Forecast Editor (GFE) Training for National Centers (FDTB): As NCEP transitions from N-AWIPS to AWIPS Migration, staff will require basic GFE training to perform routine tasks such as system maintenance, configuration and development of additional smart tools to serve NCEP's large forecast domains, and basic grid editing.
- Fire Weather:
 - COMET will continue to update the online [S-591 Advanced Fire Weather Forecasters course](#) and host an annual round table/Webinar on fire weather.
 - A new activity initiated during FY09 of developing a fire weather training curriculum for fire weather forecasters, fire weather focal points and IMETs will continue in FY10. If successful, this will become the model for the development of training curricula across other program areas.

- NOTE: It is expected the OCWWS Fire and Public Weather Services branch will be able to contribute FY09 funds to support COMET fire weather activities in FY10, therefore reducing the cost to NSTEP.
- Hydrology: The TD and the NWS [Office of Hydrologic Development \(OHD\)](#) will continue to cost-share a hydrology development DL team at COMET. The following training courses and new initiatives will be offered in FY10:
 - QPF Verification (COMET/FDTB): Develop an online module series to explain the different ways to verify QPF and improve forecasts.
 - Deterministic and Probabilistic Verification (COMET): Provides an understanding of the methodologies and tools used to verify hydrologic forecasts.
 - Short- and Long-Term Ensembles: Develop a follow-on Web module to complement an initial module developed in FY09.
 - QPF for Hydro Modeling (FDTB/COMET): Virtual training will provide training on recent advances in science, and current strengths and weaknesses in the atmospheric models for the elements that contribute to precipitation to enable forecasters to produce better QPF forecasts.
- Integrated Sensor Training:
 - Funding is again provided by NSTEP to support NOAA's [VISIT](#) program. The VISIT team includes staff from NWS, [NESDIS](#), and two NOAA Cooperative Institutes: The [Cooperative Institute for Research in the Atmosphere \(CIRA\)](#) and the [Cooperative Institute for Meteorological Satellite Studies \(CIMSS\)](#). The VISIT team supports satellite and related remote sensing training and provides assistance with live and recorded teletraining.
 - All additional funding for integrated sensor training is provided by other parts of NOAA. In collaboration with the VISIT program, NESDIS continues funding the expansion of the [Satellite Hydrometeorology \(SHyMet\) courses](#) for NWS interns, forecasters, and, new for FY10, *SHyMet for Hydrologists*. Both the Geostationary Orbiting Environmental Satellite (GOES) and the National Polar-Orbiting Operational Environmental Satellite System (NPOESS) Programs provide funding for development of satellite training modules on COMET's [MetEd Satellite Website](#) with needs identified at an annual satellite training workshop.
- Numerical Weather Prediction (NWP):
 - Two project scientists are dedicated to NWP training development under COMET (Table 5). FDTB provides one dedicated FTE in support of Weather Research and Forecasting (WRF) Environmental Modeling Systems (EMS) development, training and support (both domestic and international). The new NWP course being developed consists of seven instructional components, each focusing on the different uses of NWP in the forecast process and hands-on training through WES simulations. Updates to the NWP [Operational Models Matrix](#) will also continue in FY10 as the models change.
- SeaGrant:
 - COMET received new funding in FY09 for FY10 development of SeaGrant training for the Sea Grant extension agents working with NWS WCMs.

Appendix 5: Out Year Training Needs (FY 2011)

As was done for the FY09 Training Implementation Plan, the HOTG held a series of meetings with key NOAA PPBES Program Managers to educate them about existing NWS training activities within their programs, planned training activities, and to ensure they account for training in their Program Operating Plan (POP) submissions. We expect to have a continuing dialogue with these key decision makers to find ways to resource needed training for the next several years. These managers also have the opportunity to review this IP and provide feedback before it is signed by the OCWWS Director. New funding streams are expected in FY11 in the areas of climate training and fire weather.

In addition, TD examined all current [OSIP](#) projects, and has indicated which projects will have current and future training needs if they are implemented. Finally, TD has committed to better tracking its training, especially new initiatives, to ensure sufficient resources are allocated to see it through to completion.

Based on discussions at the April 2009 NSTEP meeting, the following training items were agreed to be deferred to, or must be held in FY 2011:

- [NWSTC Warning Coordination Meteorologist \(WCM\)/Service Coordination Hydrologist \(SCH\)](#) residence course
- Advanced Hydrologic Science residence course at COMET
- Dual-Pol Training
- AWIPS Migration Training
- Safety Training
- Wind Profiler Training
- NOAA Leadership Academy Training

Appendix 6: Informational Figures

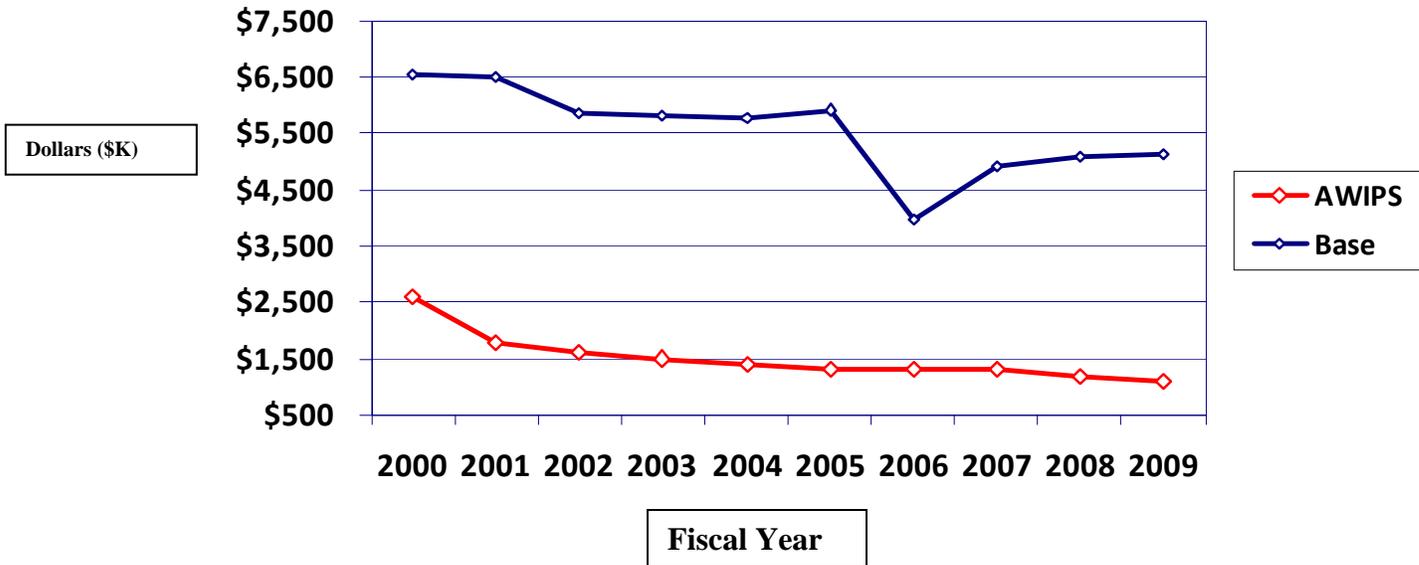


Figure 4: Yearly Distribution of AWIPS and Base Funding to NWS Training

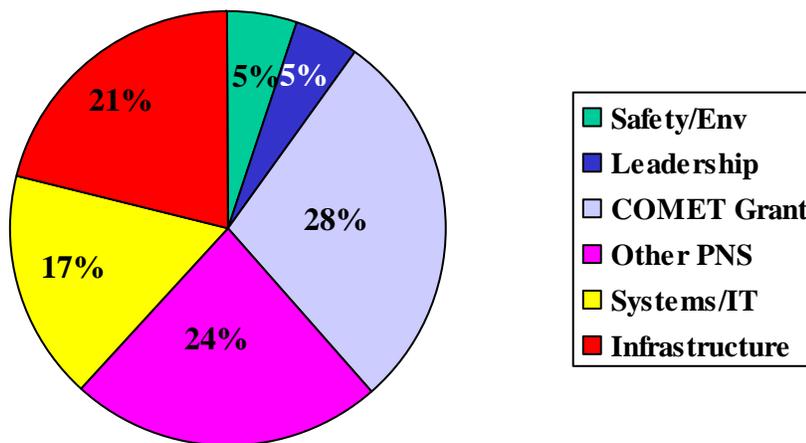


Figure 5: IP10 Funding Distribution Across Selected Program Areas

Percentage of all Web-Based Training and Instructor-Led Training Course Completions by Region (5/15/08 to 5/15/09)

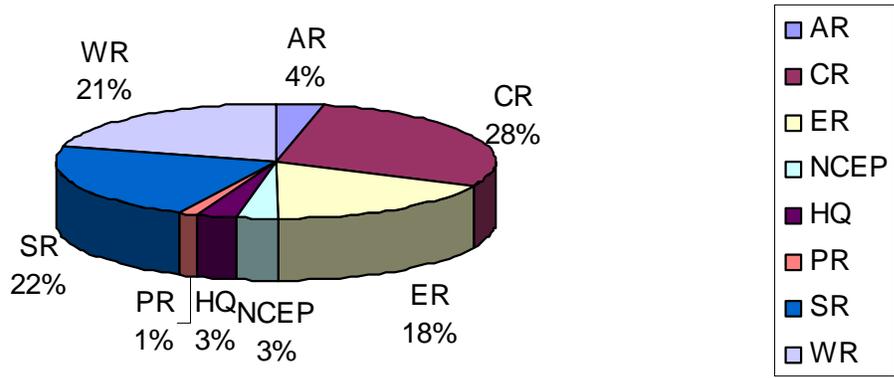


Figure 6: Web-Based and Instructor-Led Training Course Completions

Table i: Summary of IP10 Base and AWIPS Funding

	<u>Base</u>	<u>AWIPS</u>
OS6	\$ 819,067	\$ 100,000
OS61	\$ 1,563,933	\$ 800,114
OS62	\$ 128,000	\$ 476,000
OS63	\$ 636,000	\$ 5,000
COMET	\$ 1,972,000	\$ 324,500
Totals	\$ 5,119,000	\$ 1,705,614

Table 1: FY10 OCWWS Training Division (OS6) Managed Training

PNS #	Title	Solution	FY10 Cost	Funding	Comments																																				
OS6 Coordinated Training																																									
CL11	NWS Pac Region Op Climate Services	Funds for PR Op Cli Course	\$ 11,000	Base	Cost share with PRH																																				
FW01	IMET Safety Training and Certification	IMET Workshop	\$ 190,000	Base	OS22 coordinates																																				
SA08	CPR/First Aid Training	CPR/First Aid Training Funds	\$ 64,000	Base	Provide breakout																																				
HY26	RFC Forecaster Training	RFC Workshops	\$ 60,000	Base	OS3 coordinates																																				
HY36	Community Hydrologic Prediction System Configuration at RFCs	Funds for Outsourced SME Trng	\$ 40,000	Base	Workshops or RFC Visits coord by OS3																																				
-	Regional Training Funds	Regional Training Funds	\$ 60,403	Base																																					
-	Regional Training Funds	Regional Training Funds	\$ 100,000	AWIPS																																					
OS6 Infrastructure																																									
	Title		FY10 Cost	Funding	Comments																																				
	AMS Journals		\$ 135,000	Base																																					
	GotoMeeting Licenses for TD		\$ 14,664	Base	Managed by WDTB (Linda Curtis)																																				
	HOTG Planning Meetings (2)		\$ 20,000	Base																																					
	LMS License		\$ 144,000	Base	NWS part of annual NOAA LMS Charge																																				
	NSTEP Meetings (2)		\$ 30,000	Base																																					
	Operating Costs		\$ 40,000	Base																																					
	Phone/Telecom Costs		\$ 10,000	Base																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Total Coordinated Training:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Base</td> <td>\$</td> <td>425,403</td> <td></td> <td></td> </tr> <tr> <td></td> <td>AWIPS</td> <td>\$</td> <td>100,000</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Total Infrastructure Costs - Base</td> <td>\$</td> <td>393,664</td> <td></td> <td></td> </tr> <tr> <td></td> <td>GRAND TOTAL Base Funds</td> <td>\$</td> <td>819,067</td> <td></td> <td></td> </tr> <tr> <td></td> <td>GRAND Total OS6 Funding</td> <td>\$</td> <td>919,067</td> <td></td> <td></td> </tr> </table>						Total Coordinated Training:							Base	\$	425,403				AWIPS	\$	100,000				Total Infrastructure Costs - Base	\$	393,664				GRAND TOTAL Base Funds	\$	819,067				GRAND Total OS6 Funding	\$	919,067		
Total Coordinated Training:																																									
	Base	\$	425,403																																						
	AWIPS	\$	100,000																																						
	Total Infrastructure Costs - Base	\$	393,664																																						
	GRAND TOTAL Base Funds	\$	819,067																																						
	GRAND Total OS6 Funding	\$	919,067																																						

Table 2: FY10 National Weather Service Training Center (OS61) Coordinated Training

PNS #	Title	Solution	FY10 Cost	Funding	Comments
NWSTC Training Deliverables					
IN01	Implement, Upgrade & Maintain NWS LMS	Support NWS LEARN Ctr/Sub LEARN Ctrs	\$ 4,500	Base	Travel costs: CLC and E-learn conferences.
SA01	Environmental Compliance (Attrition)	Environmental Compliance Res Course	\$ 57,625	Base	1 class.
SA02	Fall Protection (Initial/Attrition) Training	Fall Protection & Rescue Res Course	\$ 74,512	Base	\$37,256/class. 2 classes.
SA03	Fall Protection Recertification	Fall Prot & Rescue Recert Res Course	\$ 298,048	Base	\$37,256/class. 8 classes.
SA04	Safety Program Management	Safety Training Res Course	\$ 56,998	Base	1 class.
LE02	Advanced Leadership Skills	Executive Leadership Seminar (ELS)	\$ 131,510	Base	1 class. 35 NWS Students. Incl Tuit Offset.
LE01	Introductory Management and Supervision	Management & Supervision Res Course	\$ 132,474	Base	\$66,237/class. 2 classes.
EE10	RRS Maintenance (Attrition)	RRS Maintenance Res Course	\$ 59,096	Base	\$14,774/class. 4 classes.
LE05	Ldrshp Dev For Lead Fcstrs/Reg/HQ Team Leads	Field Operations Mgmt Res Course	\$ 90,174	Base	\$45,087/class. 2 classes.
ME47	CRS Network Operations	CRS Network Operations Res Course	\$ 35,355	Base	\$11,785/class. 3 classes.
OB01	Data Acquisition	Data Acquisition Operations Res Course	\$ 50,088	Base	\$25,044/class. 2 classes.
OB03	Cooperative Network Skills	Cooperative Network Ops Res Course	\$ 103,436	Base	\$51,718/class. 2 classes.
EE02	ART Rawinsonde System Maintenance	ART Rawinsonde Sys Maint Res Course	\$ 22,686	Base	1 class.
EE03	CRS Maintenance	CRS Maintenance Res Course	\$ 55,137	Base	\$18,379/class. 3 classes.
IN02	Training Web Portal Development & LMS Integration	Migrate/Integrate Trng Web Portal w/ LMS	\$ 8,000	Base	Development Costs. TC manages for HOTG
EE06	NWR Crown Transmitter Maintenance	Crown Transmitter Maint Res Course	\$ 29,464	Base	\$7,366/class. 4 classes.
EE05	NWR Armstrong Transmitter Maintenance	Armstrong Transmitter Maint Res Course	\$ 36,830	Base	\$7,366/class. 5 classes.
EE11	Introduction to NWS Systems	Introduction to NWS Systems DL Course	\$ 1,000	Base	Development Costs.
IT06	AWIPS Migration Focal Point Development	AWIPS Migration FP Trng	\$ 6,000	AWIPS	Travel Costs for SMEs/Developers
IT07	AWIPS Migration System Administration Deployment	AWIPS Migration Sys Admin Deployment	\$ 506,975	AWIPS	\$98,595/class. 5 classes. \$14K for Dev Costs.
IT10	AWIPS Migration OT&E SA Support Training	AWIPS Migration OT&E SA Support Trng	\$ 98,595	AWIPS	1 class.
IT08	AWIPS Migration Local Applications Development	AWIPS Migration Local Apps Dvlpmnt	\$ 15,000	AWIPS	Development Costs.
HY03	Setup/Mgmt of WFO Hydrologic Applications	Advanced Hydrologic Apps Res Course	\$ 41,774	AWIPS	\$13,258/class. 3 classes. \$2K for Dev Costs.
IT04	Linux for WFOs/RFCs	Linux for WFOs/RFCs Res Course	\$ 94,575	AWIPS	\$31,525/class. 3 classes.
IT19	Migrating N-AWIPS Fcst Prod to AWIPS Migration	AWIPS Migration 1.0 Dvlpmnt/2.0 Delta	\$ 4,000	AWIPS	Development Costs.
HY06	AWIPS Build Updates for WFO Hydrology Software	AWIPS-I Hydromet Dist Learning Mods	\$ 2,000	AWIPS	Development Costs.
HY13	WFO Hydrologic Program Management	WFO Hydro Program Manager Course	\$ 31,195	AWIPS	1 class (\$26,195). \$5K for Dev Costs.
EE22	NEXRAD Dual-Polarization	NEXRAD Dual-Pol Development Support	\$ 8,000	NEXRAD	Development Costs.
EE08	WSR-88D Maintenance	WSR-88D Maintenance Res Training	\$ 110,612	NEXRAD	\$55,306/class. 3 classes.
EE09	WSR-88D Open RDA (ORDA) Maintenance	WSR-88D ORDA Maint Res Training	\$ 27,569	NEXRAD	1 class.
EE12	WSR-88D Refresher Training	WSR-88D Refresher Trng Res Course	\$ 27,569	NEXRAD	\$28,930/class. 2 classes.
EE18	TPMS Maintenance	TPMS Maint (Powerware Maint Course)	\$ 17,000	NEXRAD	Funds for vendor training.
EE01	ASOS Maintenance	ASOS Maintenance Res Course	\$ 94,744	ASOS	\$30,248/class. 3 classes. \$4K for Dev Costs.
EE23	RRS Maintenance (Deployment)	RRS Maintenance Res Course (Deploy)	\$ 73,870	RRS	\$14,774/class. 5 classes.
-	NWR NuTel Transmitter Maintenance	NuTel Trans Maint res course (Deploy)	\$ 28,732	NWR	\$7,366/class. 2 classes. \$14K for Dev Costs.
IA01	International Weather and Water Leadership	International Support	\$ -	Base	FTE Time Only
HY33	AWIPS/GFE Training for RFCs	GFE at RFC Workshops	\$ -	Base	FTE Time Only
EE19	Weather Radio Imp Proj (WRIP) Deployment	WRIP Deployment Support	\$ -	Base	FTE Time Only
ME50	Introduction to Next Gen Warning Tool (NGWT)	Introduction to NGWT Module	\$ -	AWIPS	FTE Time Only; w/FDTB & WDTB
IT17	AWIPS Migration Variance Training	AWIPS Migration Variance Training	\$ -	AWIPS	FTE Time Only; w/FDTB & WDTB
HY05	AWIPS Build Updates for RFC Software	RFC AWIPS-I Software Changes DL Mods	\$ -	AWIPS	FTE Time Only
EE20	Wind Profiler Deployment	Wind Profiler Deployment Support	\$ -	Profiler	FTE Time Only
NWSTC Infrastructure					
	Title		FY10 Cost	Funding	Comments
	NWSTC Base Admin Budget		\$ 317,000	Base	
	Total ASOS Funding	\$	94,744		
	Total AWIPS Funding	\$	800,114		
	Total Base Deliverable Funding	\$	1,246,933		
	Total Base Infrastructure Funding	\$	317,000		
	GRAND Total Base Funding	\$	1,563,933		
	Total NEXRAD Funding	\$	190,750		
	Total RRS Funding	\$	73,870		
	Total NWR Funding	\$	28,732		
	GRAND Total NWSTC Funding	\$	4,316,076		

Table 3: Warning Decision Training Branch (OS62) Coordinated Training

PNS #	Title	Solution	FY10 Cost	Funding	Comments
WDTB Training Deliverables					
IN01	Imp, Upgrade & Maintain NWS Comp of NOAA LMS	Support NWS LEARN Ctr/Sub LEARN Ctrs	\$ 92,000	Base	\$89K CIMMS Staff and \$3K Expenses
IN02	Training Web Portal Development/LMS Integration	Migrate/Integrate Trng Web Portal w/ LMS	\$ 18,000	Base	CIMMS Staff
IA01	International Weather and Water Leadership	International Support	\$ 18,000	Base	Funds 0.20 CIMMS Staff
IT06	AWIPS Migration Focal Point Development	AWIPS Migration FP Trng (Warn Related)	\$ 62,000	AWIPS	CIMMS Staff
IT09	WES Capabilities in AWIPS Migration	WES-II Bridge for AWIPS Migration	\$ 129,000	AWIPS	\$125K CIMMS Staff and \$4K Expenses
ME22	WES Capabilities Using AWIPS-I	WES Development and Support (AWIPS-I)	\$ 112,000	AWIPS	\$111K CIMMS Staff and \$1K Expenses
ME55	Logistics Support for the WES	WES Logistics Support Funds	\$ 25,000	AWIPS	Expenses
NP01	Effective Use of NWP in the Forecast Process	NWP in Fcst Proc (NWP DL Course)	\$ 40,000	AWIPS	CIMMS Staff to Produce WES Simulations
ME50	Introduction to the Next Gen Warning Tool (NGWT)	Introduction to NGWT Module	\$ 9,000	AWIPS	CIMMS Staff
IT17	AWIPS Migration Variance Training	AWIPS Migration Variance Training	\$ 62,000	AWIPS	CIMMS Staff
ME20	AWIPS-I Warning-Related Delta Training	AWIPS-I Warning-Related Delta Training	\$ 9,000	AWIPS	CIMMS Staff
HY04	AWIPS-I FFMP Build Updates	AWIPS-I Hydromet Software Update Trng	\$ 19,000	AWIPS	\$18K CIMMS Staff and \$1K Expenses
ME58	AWIPS Warning Application Maint Job Sheets	Warning-Related Job Sheets for AWIPS	\$ 9,000	AWIPS	CIMMS Staff
ME23	Dual-Polarization Upgrade to the WSR-88Ds	WSR-88D Dual-Pol Operations Course	\$ 144,000	Dual-Pol	\$129K CIMMS Staff and \$15K Expenses
ME39	Dual-Pol Education/Outreach for NWS Partners	Dual-Pol Radar Trng/Outreach for Partners	\$ 39,000	Dual-Pol	\$36K CIMMS Staff and \$3K Expenses
ME01	Radar Operations for New Forecasters	Distance Learning Operations Course	\$ 330,000	NEXRAD	\$125K CIMMS & \$200K Travel - 5 wkshps
ME13	Warning Operations - Severe Weather	AWOC - Severe Weather Warnings	\$ 60,000	NEXRAD	\$45K CIMMS Staff and \$15K Expenses
ME43	Mothers Day Serv Assmt Rec 1B (Wmg Best Prac)	Upd AWOC Core Track Les on Eff Wrngs	\$ 9,000	NEXRAD	CIMMS Staff
ME12	Warning Operations - Decision Making	AWOC: Core Decision Making	\$ 31,000	NEXRAD	\$27K CIMMS Staff and \$4K Expenses
ME15	Warning Operations - Winter Weather Warnings	AWOC: Winter Weather Warnings	\$ 15,000	NEXRAD	13K CIMMS Staff and \$2K Expenses
ME41	Imp Warning Imps by Building Public Partnerships	Using the IWT to Imp Weather Dec Spt Serv	\$ 13,000	SeaGrant	CIMMS Staff
ME57	Min Imp Wind Turb Farms on Fcst/Wrng Ops	DL Mod: Min Imp Wind Turb Farms on Ops	\$ -	NEXRAD	FTE Time Only
WDTB Infrastructure					
	Title		FY10 Cost	Funding	Comments
Activities & Outreach					
	DOC and NOAA Support		\$ 18,000	NEXRAD	CIMMS Staff
	External Collaboration (CASA, etc.)		\$ 57,000	NEXRAD	\$27K CIMMS Staff and \$30K Expenses
	Hazardous Weather Testbed		\$ 18,000	NEXRAD	\$13K CIMMS Staff and \$5K Expenses
	Rapid Response		\$ 80,000	NEXRAD	CIMMS Staff
Operations					
	IT Infrastructure		\$ 184,000	NEXRAD	\$134K CIMMS Staff and \$50K Expenses
	Operating Costs		\$ 25,000	NEXRAD	Expenses
	Professional Development		\$ 85,000	NEXRAD	CIMMS Staff
	Real-Time Data		\$ 40,000	NEXRAD	CIMMS Staff
	Rent		\$ 28,000	NEXRAD	Expenses
	Web Server Administration		\$ 9,000	NEXRAD	CIMMS Staff
	Website Development & Maint.		\$ 22,000	NEXRAD	CIMMS Staff
	Total WDTB Administrative Budget		\$ 566,000	NEXRAD	
	Total WDTB Base Funding	\$	128,000		
	Total WDTB AWIPS Funding	\$	476,000		
	Total WDTB Dual-Pol Funding	\$	183,000		
	Total NEXRAD Training Funding	\$	445,000		
	Total NEXRAD Admin Funding	\$	566,000		
	Total SeaGrant Funding	\$	13,000		
	GRAND Total WDTB Funding	\$	1,811,000		

Table 4 - Forecast Decision Training Branch (OS63) Coordinated Training

PNS #	Title	Solution	FY10 Cost	Funding	Comments
FDTB Training Deliverables					
HY11	Flash Flood Operations	Flash Flood/QPE Residence Course	\$ 54,000	Base	1 class at COMET
HY20	Short and Long Term Ensembles	Short and Long Term Ensembles Modules	\$ 3,000	Base	
ME08	New SOO Training (COMAP)	COMAP Residence Course	\$ 85,000	Base	1 class at COMET
ME49	MSC Winter Weather Workshop	MSC Winter Weather Workshop	\$ 17,000	Base	Funds 5 NWS students and NWS guest inst
ME30	National & Great Lakes Marine In Person Training	Funds for National Marine Workshop	\$ 29,000	Base	0.30 FDTB FTE
IS01	Earth Observing/Fcstng Satellite Ops for New Fcstrs	SHyMet Course - Interns	\$ 39,000	NESDIS	Outside Funding
IS06	Satellite Remote Sensing for Hydrology	SHyMet for Hydrologists	\$ 160,000	NESDIS	Outside Funding
IN02	Training Web Portal Development & LMS Integration	Migrate/Integrate Trng Web Portal w/ LMS	\$ -	Base	FTE Time Only; Assist NWSTC & WDTB
ME33	Trop Ops & Config for WFO Staff	Trop Ops & Config Training Course	\$ -	Base	FTE Time Only
HY29	Quantitative Precipitation Forecast (QPF) Verification	QPF Verification	\$ -	Base	FTE Time Only
IA01	International Weather and Water Leadership	International Support	\$ -	Base	FTE Time Only
IN01	Implement/Upgrade/Maint NWS part of NOAA LMS	Support NWS LEARN Ctr/Sub LEARN Ctrs	\$ -	Base	FTE Time Only; VISIT Staff Assists
IT06	AWIPS Migration Focal Point Development	AWIPS Migration FP Trng	\$ -	AWIPS	FTE Time Only; Assist NWSTC & WDTB
NP01	Effective Use of NWP in the Forecast Process	NWP DL Course	\$ -	AWIPS	FTE Time Only; Funds in COMET Tab
ME50	Introduction to the Next Gen Warning Tool (NGWT)	Introduction to NGWT Module	\$ -	AWIPS	FTE Time Only; Assist NWSTC & WDTB
IT17	AWIPS Migration Variance Training	AWIPS Migration Variance Training	\$ -	AWIPS	FTE Time Only; Assist NWSTC & WDTB
IT20	AWIPS GFE Trng for all National Ctrs	AWIPS GFE Trng for all National Ctrs	\$ -	AWIPS	FTE Time Only
IS03	Observing & Forecasting Satellite - GOES-R+	Satellite Training via MetEd Site	\$ -	NESDIS	FTE Time Only; Funding in COMET Tab
IS04	Earth Obs & Forecasting Satellite Ops - NPOESS	Satellite Training via MetEd Site	\$ -	NPOESS	FTE Time Only; Funding in COMET Tab
FDTB Infrastructure					
	Title		FY10 Cost	Funding	Comments
	Operating Costs/Admin Costs		\$ 48,000	Base	
	VISIT Team Salaries		\$ 375,000	Base	
	NWS SME Travel to COMET		\$ 25,000	Base	
	AWIPS Support		\$ 5,000	AWIPS	
Total FDTB Base Deliverables			\$ 188,000		
Total FDTB Base Infrastructure			\$ 448,000		
Total FDTB Base Funding			\$ 636,000		
Total FDTB AWIPS Funding			\$ 5,000		
Total NESDIS Funding			\$ 199,000		
GRAND Total FDTB Funding			\$ 1,476,000		

Table 5: Cooperative Program for Meteorology, Education & Training (COMET) Program Training Deliverables

PNS #	Title	Solution	FY10 Cost	Funding	Comments
COMET Training Deliverables					
HY11	Flash Flood Operations	Flash Flood/QPE Residence Course	\$ 17,000	Base	1 class - travel costs under OS63 tab
ME08	New SOO Training (COMAP)	COMAP Residence Course	\$ 60,000	Base	1 class - travel costs under OS63 tab
IA01	International Weather and Water Leadership	International Support	\$ 25,000	Base	Funding above Core Funding
HY19	Quantitative Precipitation Forecasting	QPF for Hydro Modeling Virtual Class	\$ 17,000	Base	Funds are for COMET to host virtual class
NP01	Effective Use of NWP in the Forecast Process	NWP in Fcst Proc (NWP DL Course)	\$ 324,500	AWIPS	NWP Salaries
AV10	DLAC-II: Producing Customer-Focused TAFs	DLAC-II: Online Modules/Simulations	\$ 300,000	Aviation	Funds from OCWWS ASB
FW02	Fire Weather Fcstr Trng - S-591 Course	S-591 Module Update and Webinar	\$ 200,000	Fire Weather	Funds from OCWWS Fire & Pub Wx
TS06	Tsunami Warning System Training	Web Module on the Tsunami Warning Sys	\$ 70,000	Tsunami	FY09 Funds from Tsunami Program
TS05	Tsunami Safety Education Training	Tsunami Strike! Web Module	\$ 200,000	Tsunami	FY09 Funds from Tsunami Program
TS03	Tsunami Science and Warning Service Training	Tsunami Science Web Module	\$ 70,000	Tsunami	FY09 Funds from Tsunami Program
HY29	Quantitative Precipitation Forecast (QPF) Verification	QPF Verification	\$ 220,000	Hydro+	Funds from OHD Director
IS03	Earth Observing & Forecasting Satellite - GOES-R+	Satellite Training via MetEd Site	\$ 330,000	NESDIS	Outside Funding
IS04	Earth Observing & Forecasting Satellite - NPOESS	Satellite Training via MetEd Site	\$ 265,000	NPOESS	Outside Funding
ME40	Improved HYSPLIT Model Depiction and Delivery	HYSPLIT Model Depict & Delivery Web Mod	\$ 245,000	OPS	Funds from OPS
-	COMET International Funding		\$ 250,000	IAO	As of 6/5/09. Funds from NWS IAO
ME49	MSC Winter Weather Workshop	MSC Winter Weather Workshop	\$ -	Base	Part of COMET Core Funding; \$ in FDTB Tab
FW08	Knowledge of Basic Fire Behavior	S-290 Int Wildland Fire Behavior Course	\$ -	Fire Weather	Part of COMET Core Funding
COMET Infrastructure					
	Title		FY10 Cost	Funding	Comments
	Operating Costs		\$ 1,853,000	Base	COMET Grant - Core Funding

Total COMET Base Funding	\$	119,000
Total COMET Base Infrastructure	\$	1,853,000
Total COMET Base Funding	\$	1,972,000
Total COMET AWIPS Funding	\$	324,500
Total COMET Aviation Funding	\$	300,000
Total COMET Fire Weather Funding	\$	200,000
Total COMET Hydro+ Funding	\$	220,000
Total COMET Tsunami Funding (FY09 Funds)	\$	340,000
Total COMET NESDIS Funding	\$	330,000
Total COMET NPOESS Funding	\$	265,000
Total COMET OPS Funding	\$	245,000
Total COMET IAO Funding	\$	250,000
GRAND Total COMET Funding	\$	4,446,500

Table 7: FY10 Unfunded Training

PNS #	Coord	Title	Solution	Priority	FY10 Cost	Comments
Mission-Critical Unfunded Training						
AV10	OS62	DLAC-II - Producing Customer-Focused TAFs	DLAC-II: Online Modules/Simulations	1.82	\$ 74,000	\$71K CIMMS Staff and \$3K Expenses
CL01	COMET	Climate Variability and Change	Virtual Climate Variability Workshop	1.86	\$ 34,000	
ME59	COMET	Update Web-Based Marine Training	Analysis of COMET Marine Modules	1.86	\$ 75,000	
ME09	COMET	New SOO Training - QPF and FF Forecasting	Virtual QPF/Flash Flood Fcstng Course	2.00	\$ 17,000	
CL03	OS6	Climate Services and Outreach	Climate Services and Outreach Webcast	2.00	\$ 39,000	
HY32	OS6	Static Flood Inundation Mapping-QC/QA	Funds to Attend Coastal Svcs Ctr Trng	2.00	\$ 40,000	
CL02	OS61	Operational Climate Services	Op Climate Services Residence Course	2.00	\$ 50,000	
ME07	COMET/OS63	Boundary Layer Processes	Boundary Layer Processes Virt Course	2.17	\$ 17,000	
HY35	OS61	Hydrology Daily QC	Field/NWSTC Co-Developed DL Mods	2.17	\$ 8,000	
ME38	OS63	Communicating Fcst Uncertainty to Emer Mgrs	Emergency Manager Modules	2.33	\$ 150,000	
HY24	OS6	Cold Region Hydrology	Cold Regions Workshop	2.33	\$ 40,000	
WM02	COMET	National SKYWARN® Spotter Training	DL Module on SKYWARN® Training	2.33	\$ 150,000	
ME32	COMET/OS63	SOO Training -- Communicating Fcst Uncertainty	Virtual Comm Fcst Uncertainty Symp	2.50	\$ 57,000	
HY27	OS61/OS63	Static Flood Inundation Mapping	Static Flood Inun Map Mods/Webcasts	2.50	\$ 8,000	
GEO02	OS61/OS63	The Use of GIS in NWS Operations (OSIP 06-003)	GIS Online Training	2.57	\$ 16,000	
DE02	OS62	Communicating Risks in High-Impact Events	LMS Mods on Dec Supt to Comm Risk	2.67	\$ 22,000	MD Service Assessment - R2
SP01	COMET/OS63	NWS Space Weather Fcstrs Training	Space Weather Fcstrs Training Mods	2.71	\$ 112,000	
SP02	COMET/OS63	Space Weather Training for WFCMs	Space Weather Training Mods for WFCMs	2.71	\$ 28,000	
ME51	OS62	Imp Wrng Svcs Assoc w/Quasi-Linr Conv Systems	QLCS Asynchronous Module	2.71	\$ 4,000	
LE03	OS62	Sci of Inst: Best Pracs for Multi-Med Lrng Designers	Science of Multimedia Lrng Virt Course	2.71	\$ 19,000	
Total Unfunded Mission Critical Unfunded Training					\$ 960,000	
Other Unfunded Training						
EE07	OS61	NWR SRS Transmitter Maintenance	SRS Transmitter Maint Res Course	2.71	\$ 5,700	
FW11	OS61	Type 2/3 IMET Training/Familiarization	Type 2/3 IMET Webinars and DL Modules	2.83	\$ 3,000	
HY37	OS63	Water Resources Best Practices	Water Resources Workshop	2.83	\$ 40,000	
OB05	OS61	CO-OP Program Training for HMTs/Interns	Field Requirements Team to Scope Out	2.86	\$ 8,000	
GEO01	OS63	Mapping Datums/Geospatial Data Basics	Map Datums/Geo Data Basics Web Mod	3.00	\$ 15,000	
ME60	OS62	Advanced Damage Survey Techniques	Advanced Damage Survey Techniques	3.00	\$ 17,800	
GEO03	COMET/OS63	Small Basin Customization & Management	Small Basin Cust & Mgmt Res Course	3.00	\$ 99,000	
CL10	COMET	Imp Vol Ash Cloud Fcstg/Effects on Cli/Avn	Volcanic Ash Monitoring/Climate Module	3.00	\$ 150,000	
ME35	COMET	Uncertainty Statistics Basics	Uncertainty Statistics Basics Course	3.00	\$ 150,000	
IT14	OS6	COTR Management of IT Service Contracts	ESI Intl COTR Mgmt of IT Serv Cont Course	3.14	\$ 60,000	
CL06	COMET	Climate Data Analysis and Goodness	Climate Data Analysis & Goodness Course	3.17	\$ 150,000	
CL08	COMET	Climate Change and IPCC Report	Cli Change & IPCC Report Online Course	3.50	\$ 150,000	
CL07	COMET	NCDC Homogenized Data	NCDC Homogenized Data Module	3.83	\$ 150,000	
CW07	OS61	CWSU Transition Preparation	CWSU Transition Preparation	4.00	\$ 6,000	
IT11	OS6	Cap Plng & Invest Control (CPIC)/Exh 300	ESI Intl CPIC & Exhibit 300 Course	4.00	\$ 20,000	
CL09	COMET	NCEP Advancements in Climate Modeling	NCEP Advancements in Cli Mod Course	4.00	\$ 117,000	
-	OS6	University Assignment Program (UAP)	Funds for UAP	4.00	\$ 100,000	
Total Other Unfunded Training					\$ 1,241,500	
Grand Total FY10 Unfunded Training					\$ 2,201,500	