# National Weather Service

# AWIPS II Overview and Status

## National DOH Workshop

## July 15, 2008

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# Overview

- Contract Overview
- Testing
- Training
- Site Migration
- Governance
- Getting Ready
- Summary

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# Contract Overview

# AWIPS II
# Re-Architecture Approach

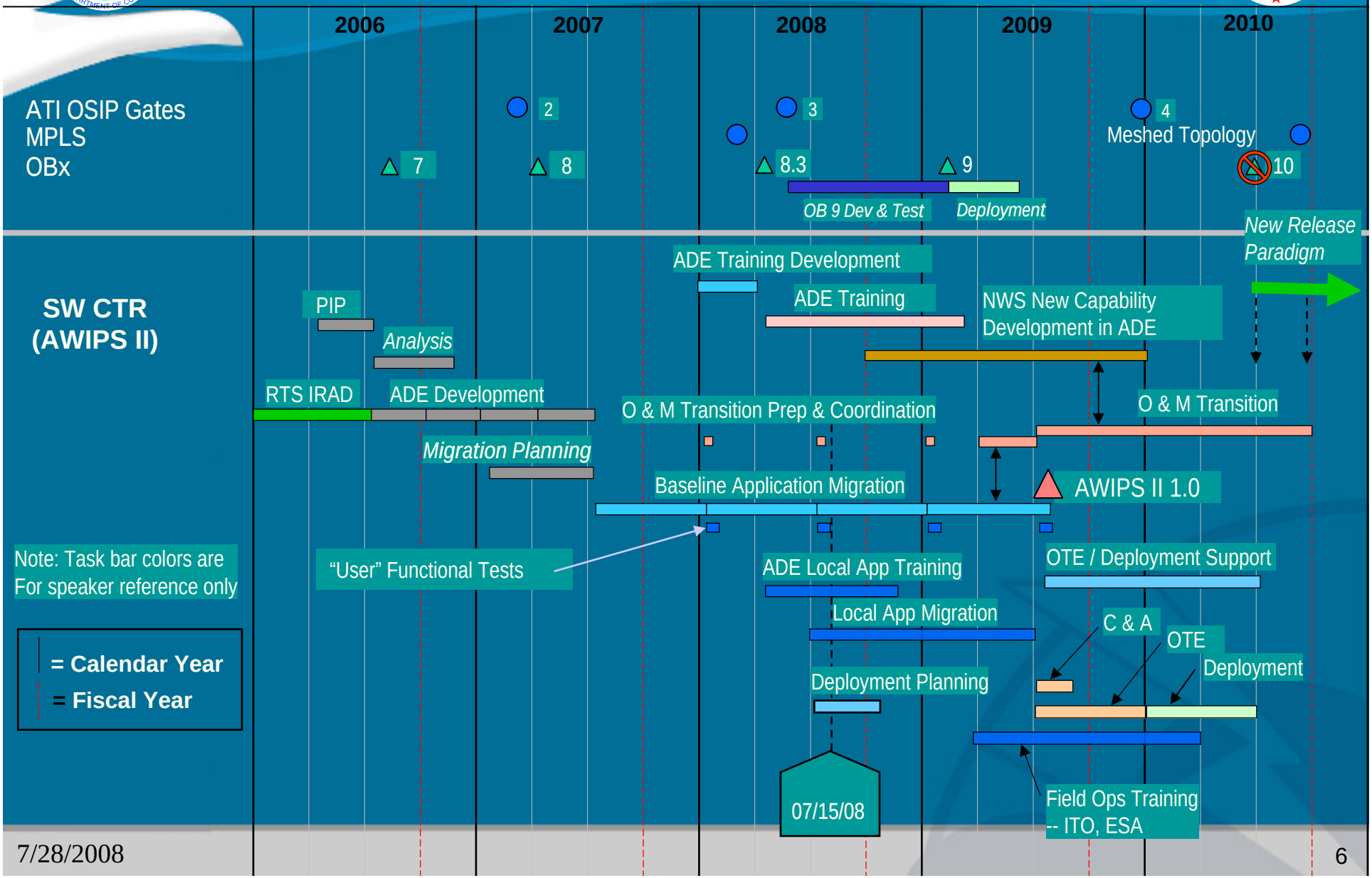
- **Perform "black-box" conversion**
  - ***Preserve existing functionality, look and feel on top of new infrastructure***
- **No loss of functionality**
  - ***Deployed system current with deployed AWIPS capability (i.e., OB9)***
- **Thorough field validation and acceptance before deployment**
- **Use open source projects - No proprietary code**
  - ***JAVA and open source projects enable AWIPS II to be platform and OS independent***
    - *No plans to move from Linux*
- **ADE enables collaborative development**
  - ***OS, Platform independence allows non-Linux based research to be easily integrated into AWIPS II***

# AWIPS-II Task Orders

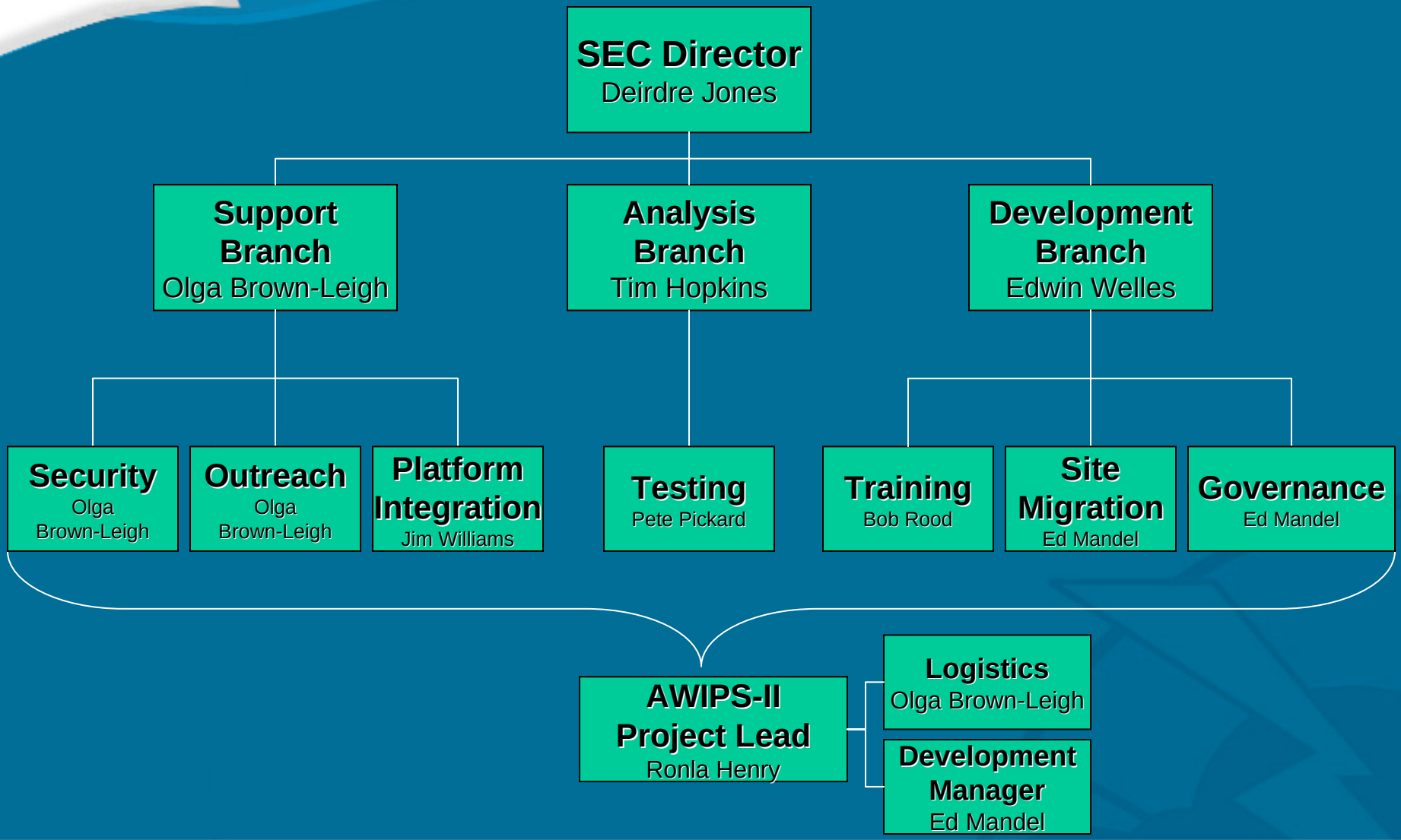
| Task Order | Delivery Date |
|---|---|
| Development of AWIPS SW PIP (TO1) | June 2006 |
| Conduct Initial System Analysis (TO2) | October 2006 |
| Develop ADE/SDK (TO3-6) | July 2007 |
| Plan Baseline Application Migration (TO7) | October 2007 |
| Migrate primarily D2D/Warngen capabilities migrate (TO8) | February 2008 |
| Migrate primarily GFE capabilities (TO9) | September 2008 |
| Investigate technical issues/questions surrounding migration of AWIPS-I to AWIPS-II (TO-DTP) | January 2009 |
| Migrate of primarily Hydrologic capabilities (TO10) | February 2009 |
| Complete AWIPS-II Release 1.0 (TO11) | July 2009 |
| Provide of technical materials supporting training preparation following TOs 8-11 (TO-T1) | 3 weeks following TO delivery date |

# AWIPS II Roadmap

Migration Strategy



# SEC Organization
# AWIPS-II



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## Testing

# AWIPS II
## Testing Approach

- **Purpose:**
  - ***Provide feedback to Raytheon on TO software deliverables***
  - ***Improve software quality in support of OT&E and Deployment***
- **Layered Approach**
  - ***IV&V (Independent Verification & Validation)***
    - *Testing Objective: Push the system; Test to break*
    - *Testing based on TO contents*
    - *Includes "menu mapping" exercise*
  - ***UFE (User Functional Evaluation)***
    - *Testing Objective: Provide operational look at TO deliverables*
    - *Testing based on TO contents*
    - *Heavily focused on implementation variances of end-user functionality*
  - ***OT&E (Operational Testing & Evaluation)***
    - *Testing Objective: Verify AWIPS-II operationally ready for deployment*
    - *Controlled testing environment at operational sites*
    - *Follows evaluation of TO11*

**http://www.nws.noaa.gov/ost/SEC/AE/Testing.htm**

# AWIPS II
# Testing Status

- Architectural IV&V test completed
- TO8 IV&V testing on-going
- UFE testing began with TO8
  - *Regional HQ – 5*
  - *WFO – 18*
  - *RFC – 3*
  - *NC – 1*
- ~187 TTRs written; 73 planned for future TO

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# Training

# AWIPS II Training Approach

- **Purpose:**
  - ***Ensure that developers able to utilize AWIPS-II***
  - ***Ensure that end-users able to configure, monitor, and administer AWIPS-II***
- **Approach:**
  - ***Development Organizations (GSD, MDL, OHD, SEC) planning and executing training***
  - ***NWSTD involved in planning and executing operational training***
    - *Focus Areas:*
      - **Local Application Developer**
      - **Application Focal Point**
      - **System Administration**

**http://www.nws.noaa.gov/ost/SEC/AE/Training.htm**

# AWIPS-II Training Status

- **Development Organizations training underway**
  - ***Planned to be completed Dec, 2009***
- **Operational Training underway**
  - ***FY08***
    - *Initial Module Development*
      - **Released SOA Training Module**
  - ***FY09***
    - *Continue Module Development*
    - *Start application focal point training development*

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# Site Migration

# AWIPS-II Site Migration Approach

- **Purpose:**
  - ***Provide structured method to ensure local site migration from AWIPS-I to AWIPS-II***
    - *Includes:*
      - **Local Application Migration**
      - **Application Configuration**
      - **Product Format Template Configuration**
      - **Other…**
- **Approach:**
  - ***Team (regions, HQ) plan/coordinate***
  - ***Regions/Offices execute***

**http://www.nws.noaa.gov/ost/SEC/AE/Site_Migration.htm**

# AWIPS-II Site Migration Status

- **Local Application**
  - *NCLADT formed*
  - *Local applications Identified*
  - *Working to determine developer/local application assignments*
- **Site Migration**
  - *Working to identify migration items*
  - *Working to identify LOE for procedure migration*

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## Governance

# AWIPS-II Governance Approach

- **What is it?**
  - *Governance model controls the development, test, integration, configuration management, deployment and support of the new system -- both hardware and software*
- **Why?**
  - *AWIPS II offers new levels of flexibility and extensibility*
  - *New rules needed to exploit system capabilities, define limits*
  - *Tension between unlimited modifications and ability to support the baseline system*
- **Sample issues for consideration**
  - *Monolithic configurations no longer required -- how do we manage site specific configurations?*
  - *Plug ins can be down loaded and installed on demand*
  - *Scripting that modifies AWIPS  menus, functions*
- **Flexible Governance Model enhances open source implementation**
  - *Open source – closed community model*
  - *Path to baseline defined for local and externally developed applications*
  - *Definition of "sand box" for development and execution of local applications without impacting operations*

**http://www.nws.noaa.gov/ost/SEC/AE/Governance.htm**

# AWIPS-II Governance Status

- **Vision Team established**
  - ***Defining the decision processes for AWIPS II***
- **Governance Sub-Teams**
  - ***Local Application Governance Team established***
    - *Reviewing*
      - **Requirement Definition**
      - **Development Paradigm**
      - **Release Process**
      - **Installation**
      - **System Standards**
  - ***Baseline Software Team to be established***
  - ***Baseline Hardware Team to be established***
  - ***Local Hardware Team to be established***

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# Getting Ready

# What can you do?

- **Focus on AWIPS II**
  - ***Download and install TO8***
    - *Contact Regional Representative*
  - ***Start Training – don't wait until TO10!***
- **Local application migration**
  - ***Start training and learning the new environment***
- **Testing**
  - ***Support side by side and evaluation testing of AWIPS II, particularly TO10***

# Summary

- **Application migration underway 2007**
  - ***TO8 Delivered February 2008***
  - ***Expect TO11 delivery July 2009***
- **Government Activities underway**
  - ***Involvement of HQ, regions, offices, and centers required***