Damage Assessment
Course Objectives

At the end of this course, participants will be able to:

✔ describe the purpose of disaster assessment

✔ recognize the need for disaster assessment teams (DATs)

✔ develop Rapid Assessment plans and procedures.
Course Objectives

✓ determine what data is needed

✓ determine how the data is obtained

✓ identify the required forms and the process to complete them
Local Damage Assessment
Assessment is Accomplished in 3 Phases

1. **Rapid Assessment** - Takes place within hours after an incident and focuses on **lifesaving needs, imminent hazards, and critical lifelines**.

2. **Preliminary Damage Assessment (PDA)** - identifies and affixes a dollar amount to damages.

3. **Combined Verification** - includes a detailed inspection of damages to individual sites.
Why Do Damage Assessment?

Conducting a local damage assessment enables local officials to:

• **Determine the severity and magnitude of the event**

• Quantify homes and businesses impacted by the disaster

• Determines whether local resources will be sufficient to effectively respond and recover from the event
Why do an assessment?

- provides local departments and agencies with information
- helps to make decisions on how to apply response resources
- provides state agencies and volunteer organizations with information
- media wants to know the impact and cost
Why do an assessment?

- document hazard mitigation needs
- measure the economic impact of a disaster
- respond to media and congressional needs
Why is Rapid Needs Assessment Important?

- Developing rapid assessment plans and procedures.
- Testing, evaluating, and finalizing the plan.
Local Damage Assessment Must Be Rapid, Detailed and Accurate.

- It should be completed and submitted to the State within 36 hours of the event.
- The data collected will then be analyzed to determine if supplemental assistance will be needed from the State and/or Federal agencies.
- If necessary, the State will request a joint preliminary damage assessment with the Federal Emergency Management Agency (FEMA) and/or the Small Business Administration (SBA).
- Delay in completing the assessment may delay supplemental disaster assistance to those most in need.
How to Classify

• We must have a common way to call each classification
• Remember we are doing the first assessment to ID
  ➢ What is wrong
  ➢ Where the problems are (LOCATION)
  ➢ How bad is it
There are 4 degrees of damage:

- Destroyed
- Major
- Minor
- Affected
WIND DAMAGE: SINGLE FAMILY DWELLING

Examples:
• Some shingle damage
• Few broken windows
• Cosmetic damage to siding
• Repairable

AFFECTED
WIND DAMAGE: SINGLE FAMILY DWELLING

Examples:
- One (1) wall damaged
- Section of roof missing or damaged
- Repairable

MINOR
Examples:

- Substantial structural damage to walls, roof, etc.
- Repairable

MAJOR WIND DAMAGE: SINGLE FAMILY DWELLING

Examples:

- Substantial structural damage to walls, roof, etc.
- Repairable
WIND DAMAGE: SINGLE FAMILY DWELLING

Examples:

• Total Loss
• Structure is compromised
• Not repairable

DESTROYED
WIND DAMAGE: MOBILE HOME

Examples:
• Minor dents to roof or siding
WIND DAMAGE: MOBILE HOME

Examples:
• Utility connections broken
• Slight movement on piers/foundation
WIND DAMAGE: MOBILE HOME

Examples:
• Wall and roof damage
• Shifted on piers/foundation

MAJOR
WIND DAMAGE: MOBILE HOME

Examples:
- Total Loss
- Bent Frame
- Buckled walls, roof

DESTROYED
FLOOD DAMAGE: SINGLE FAMILY DWELLING

Examples:

• Without basement: less than 12 inches on 1st floor.
• With basement: less than 12 inches.
• No structure damage
FLOOD DAMAGE: SINGLE FAMILY DWELLING

Examples:

• Without basement: 1-2 feet of water on 1st floor.
• With basement: 1-8 feet
FLOOD DAMAGE: SINGLE FAMILY DWELLING

Examples:
• Without basement: 2-5 feet of water on 1st floor.
• With basement: over 8 feet
• Collapsed basement wall(s)

MAJOR
FLOOD DAMAGE: SINGLE FAMILY DWELLING

Examples:

• Over 5 feet of water on 1st floor
• Basement full and over 2 feet of water on 1st floor.

DESTROYED
FLOOD DAMAGE: MOBILE HOME

Examples:

• Water standing under or around mobile home, but not touching the bottom board.
• Indication of water being around a mobile home, but not touching the bottom board following a flash flood.
FLOOD DAMAGE: MOBILE HOME

Examples:

• Utilities flooded
• Piers/foundation shifted
• Water touched or soaked at the bottom board, but did not enter the primary living area.
FLOOD DAMAGE: MOBILE HOME

Examples:

• Water soaked bottom board and the primary living area.
• Piers/foundation washed out or away.
FLOOD DAMAGE: MOBILE HOME

Examples:

• Washed off piers/foundation
• Frame bent or twisted.
• Mobile home has turned over on its side/top.
• 4 feet + water above floor level.
What is it MACs Do

- Before Activation
- After Activation
- As Part of a Windshield Survey
“Windshield Survey”

• Where appropriate, windshield surveys are used to expedite and verify the extent and impact of damage immediately following or during a disaster and collect damage information to determine disaster.
Do’s

• Go outside your home or office and note what is happened. Then Report it to County.

• Wait for **ACTIVATION** by your **City or County** before you Start any further Damage Assessment. Must be under Activation.

• If you are the first up on the net – **Become Net Control** and take down information to be reported to County.

• Report to your City local conditions when called.
Do’s

• Conduct visual inspection

• Look for waterline or debris lines to determine depth of water verify damages

• Focus on degrees of damages and habitability. Do not become preoccupied with property value

• Be sensitive when discussing damages with property owner

• Only report disaster-related damages.
Do’s

• Look for the perimeter of the damager area, not the interior
• We survey as many streets as possible noting which one have any damage not detailed addresses
• Optimum grid layout
• NOTE: We observe, we do not FIX

• **Focus on your own safety first**
• Net Control will do a Health & Welfare Check every **15 minutes** to make sure you are Okay!
Don'ts

• Do not go into building
• Do not drive past downed power lines
• Do not drive in deep (1’ or more) or moving water
• **Give Aid** – Only Report ISSUES to higher Authority and move on with your assessment
“Windshield Survey”

• The State DOT and Federal or State agencies with responsibility for highways under their jurisdiction will have advance information on the initial damage and road closures.

• As part of the more general disaster assessment, Federal Highway Administration (FHWA) field engineers will be assigned to verify extent and severity of damage to highways and bridges.
“Windshield Survey”

- A Rapid Assessment Survey, also known as a “Windshield Survey” is a hash mark tally of impacted residential and business structures.
- Once the number of homes impacted in each of the previously mentioned damage categories is known, this information will determine the deployment of a Disaster Assessment team to gather detailed information about the structures and residents impacted.
“Windshield Survey”

- The first assessment conducted should focus on the people's needs..

- The primary focus is on the number of structures that sustained damage. The Teams evaluated extent of damage earmarks a structure in one of following levels of damage: Destroyed, Major, Minor, Affected but Habitable, and Inaccessible.
“Windshield Survey”

- The magnitude of a disaster (without necessarily delivering exact figures)
- The impact of a disaster on society
- People’s capacity to cope
- The most urgent relief needs and potential methods for delivery
- Priorities for action
- The utilization of resources for immediate response
- The need for detailed assessment of specific geographical areas or substantive sectors
- The level of continuing or emerging threats
The characteristics of a team are:

• Common interest
• Clear allocation of responsibilities among team members
• Complementary of tasks
• Shared commitment
• Inputs of all members are important to fulfill the task
“Windshield Survey”

Team members should be equipped with:

- Pen or pencils
- Official report forms
- A board or a file to write on
- Protection of papers from water and dirt
- Blank paper
- Maps of the area
- Food and water for the team
- Fuel supplies
- GPS
- Spare clothes and first aid supplies for longer missions
"Windshield Survey"

CITY OF WALKER
STORM DAMAGE
MAY 31, 1998

(All values and degrees of damage are estimated from the damage assessment reports)
“Windshield Survey”

Let’s Do a Windshield Survey
“Windshield Survey”