Government of
Northwest Territories

Northwest Territories Defensive Firefighter Training

SESSION 8

DEFENSIVE OPERATIONS

Government of the Northwest Territories
Municipal and Community Affairs

First Edition (2025)

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SESSION 8 – DEFENSIVE OPERATIONS

INTRODUCTION

NWT Defensive Firefighter Training (NWT-DFT) is a competency-based learning curriculum for community fire departments. This workbook provides volunteer firefighters with the knowledge required to achieve 34 skills. When successfully assessed, students and volunteer NWT firefighters will have met the basic requirements to respond to exterior fire scenes. Skills in the NWT-DFT program are to be assessed at National Fire Protection Association (NFPA) standards.

Defensive fireground operations involve protecting exposures, containing the fire, and minimizing property damage while prioritizing firefighter safety and preventing the fire from spreading. Indirect attack firefighting involves controlling a fire by managing fuels, creating barriers, and using water. Defensive firefighter duties can include working with building utility providers and taking part in exterior salvage and overhaul.

LEARNING OUTCOMES

1. Describe the concept of defensive firefighting operations
2. Describe indirect attacks using handlines and master stream devices
3. Describe the suppression of fires in exposed and/or high-fuel load environments
4. Describe the tactics used to protect exposures and suppress chimney fires
5. Explain the reasons for shutting off electrical, water and fuel utilities
6. Explain the purpose of salvage and overhaul operations
7. Skill Drill 8-1: Perform contacting a utility provider to isolate location
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Digital versions of all books in the NWT Defensive Firefighter Training program are available for download and/or printing here:
https://communitylearning.learnworlds.com/defensive-fire

DEFENSIVE OPERATIONS OVERVIEW

Firefighters use a defensive strategy when it is too dangerous to go inside a burning building. This can happen if the fire is too big, if there are not enough trained people, or if the fire department conducts defensive operations only. Firefighters trained in defensive work must never go inside any building affected by fire. Even if a building is close to the fire (an exposure) but not burning yet, defensive firefighters need to understand the risks and only enter exposed structures if trained and competent.

Key Goals for defensive firefighting

1-Control and Suppress the Fire: Knock down flames and stop the fire from growing — all from outside the building.

2-Protect Exposures: Stop the fire from spreading to nearby buildings, vehicles, vegetation, or other flammable materials.

3-Preserve Firefighter Safety: Keep personnel out of structurally compromised or dangerous areas by operating entirely from the exterior.

4-Prevent Rekindling: Maintain water flow and observation until the fire is fully extinguished to prevent it from starting again.

WHAT IS AN EXPOSURE?

In firefighting, an exposure is anything close to a fire that could catch fire if the fire is not controlled. This could be a nearby house, shed, vehicle, or even trees and grass. Firefighters protect exposures to stop the fire from spreading and causing more damage.

INDIRECT ATTACK

In firefighting, an indirect attack is a strategy used to apply water to nearby surfaces or into the hot smoke layer from a safe distance. This method cools the area and reduces the fire's intensity.

When a fire department operates in defensive mode only, such as many small NWT departments, indirect attacks are a key strategy. This defensive strategy means firefighters do not enter burning structures. Their goal is to:

- Protect lives (mainly by keeping firefighters safe)
- Stop the fire from spreading
- Protect nearby buildings or property
- Let the fire burn itself out

An indirect attack is ideal when you can't go inside because it:

- Applies water or foam from outside
- Cools fire by turning water into steam
- Reduces fire's energy without needing firefighters to enter the structure

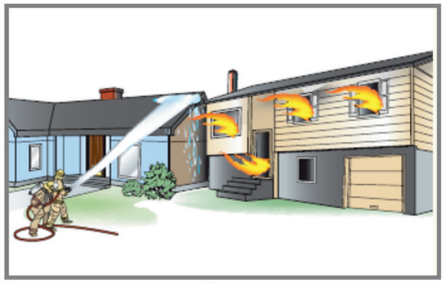
Indirect attacks are useful for:

- Safety of firefighters without structural training
- Working with limited staff or equipment
- Slowing or stopping the fire enough to save part of the building
- Protecting exposures (nearby structures or areas)

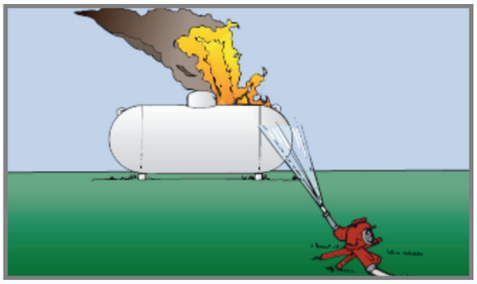
SAFETY NOTES

- Ensure no one is inside before using an indirect attack
- Be ready for changes—if a roof collapses or fire spreads, adjust your position quickly.
- Maintain strong communication and watch for hazards like propane tanks or power lines.

Examples



Firefighters using a handline to protect an exposure



Using a portable monitor on gas tank close to fire

Using a deck gun on top of apparatus

INDIRECT ATTACK

Key Tools

For defensive firefighting, both handlines and master streams are used from a safe distance. Water is directed into the burning building through doorways, windows, and other openings or onto exposures to keep the fire from spreading.

Handlines

Handlines refer to the sections of hose that firefighters handle and operate manually during firefighting operations. These handlines are made up of attack hoses (Session 6 and 7). They are durable, flexible, and capable of delivering a variety of water streams to effectively combat fires. Defensive firefighters must be able to advance and position these hose lines properly.

Handlines are operated by one or more firefighters during defensive operations.

USING HANDLINES SAFELY

- Check fire size, location, hazards; always be aware of surroundings.
- Work in pairs for safety and better hose control.
- Make sure hose is full of water, nozzle is set right, air is bled out.
- Move in safely, talk with your partner, and adjust as needed.
- Nozzle operator aims, controls water; back-up supports and moves hose.
- Watch the fire and back out if it becomes unsafe.

Master Stream Devices

A master stream is a tool used to fight large fires from a safe distance. It sprays a large amount of water or foam at high pressure. It can be controlled by hand or by remote. Some master streams stay on the fire truck. Others can be removed and used on the ground.

A ***deck gun*** is a nozzle fixed to the top of a fire truck (sometimes connected to hose). The pump operator opens a valve to start the water.

USING MASTER STREAM DEVICES SAFELY

- Assess the fire size, location, and any dangers.
- Choose good location for the master stream—moving it after the water is flowing is difficult.
- Make sure there is enough water to support the stream. They flow substantial amounts of water.
- Keep clear—high volumes of water under pressure is dangerous.
- Stay in contact with command.
- Watch for safety and track progress.

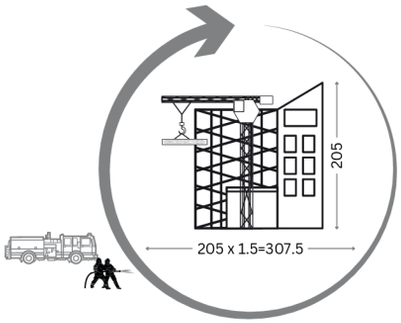
A ***portable monitor*** sits on the ground and can be moved where needed. It is safely secured, and hose lines are connected to supply water to monitor.

FIRE SCENE CHALLENGES

Some fire locations—like lumberyards, trash piles, and buildings under construction—can be especially dangerous, so defensive tactics are often the safest way to fight these fires.

Construction, renovation, or demolition sites

Defensive firefighting is often used at buildings under construction, repair, or being taken down. These places may have a lot of fuel that can burn easily, lots of air to feed the fire, and no working fire protection systems. Firefighters must set up a collapse zone—an area where no one should work because part of the building could fall down. When possible, this zone should be at least 1.5 times the height of the building.



Stacked/piled materials

Fires in stacked or piled materials are hard to fight. The piles can fall down suddenly without warning. Firefighters often need to use strong water pressure to reach deep into the pile. These fires take a lot of work and a lot of water. Defensive tactics are often the safest way to handle them.

Lumberyards

Defensive firefighting is often used in lumberyards. These sites have a lot of wood and other materials that burn easily. There may not be many ways for fire trucks to get close. Other obstacles can make it hard for firefighters to safely reach the fire. Because of this, lumberyard fires often need a lot of water and are best fought from a safe distance.

Trash

Defensive firefighters must wear the right protective gear when attacking trash fires because the materials burning are often unknown. Firefighters should stay at a safe distance and work from upwind, so smoke and fumes blow away from them. If the fire is small, a Class A-B dry chemical extinguisher may work. For bigger fires, use a hose line or master stream device.

FIRE SCENE CHALLENGES

Chimney fires

Chimney fires can happen in any NWT community because many people use wood or pellet stoves. These fires are hard to fight and can be dangerous.

Limited Access: On rooftops in locations that are difficult for firefighters to access.

Heat and Smoke: Generate high heat and produce large volumes of smoke, which can create hazardous conditions and impact visibility.

Structural Integrity: Can compromise the structural integrity of the chimney and other building materials. The heat can cause expansion and contraction, leading to cracks, fractures, or collapse of the roof and structure.

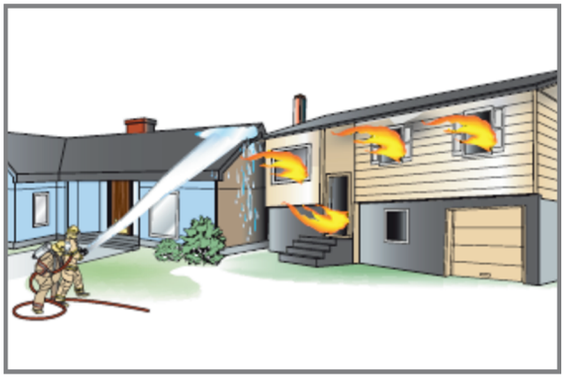
Creosote Buildup: A byproduct of burning wood materials that can accumulate inside chimneys over time. Creosote can ignite quickly and burn very hot.

Embers and Sparks: May escape through the chimney and ignite combustible materials on the roof or surrounding structures. You must continuously monitor the roof for fire spread.

Water use: Chimney fires are tricky to fight because using too much water can damage the building. Water should only be used in small, careful amounts. If cold water hits a hot chimney, it can weaken the structure by causing cracks or damage from the sudden change in temperature. That's why firefighters often use other tools like foam or dry chemical powder to smother the flames.

Protecting exposures

One main goal of defensive firefighting is to protect other structures or materials near the fire, called exposures. Exposures can be other buildings, trees, or anything close by that could catch fire. Once the team decides how to fight the fire (using hose lines, master streams, or both), they work to stop the fire from spreading and causing more damage.



UTILITIES

Finding and dealing with utilities at a fire scene is important because active fuel, power, or water systems can feed the fire, cause explosions or shocks, and endanger lives.

Electrical

Turning off electricity should only be done by trained professionals. Firefighters should not attempt it unless properly trained. Treat the fire as a Class C fire.

Solar energy systems

For small, defensive-only fire departments, fighting solar panel fires with an indirect attack is usually the safest and most appropriate approach—but only under strict safety precautions.

- Treat solar panel fires as electrical fires.
- Protect exposures and wait for utility personnel or solar specialists if possible.
- Always keep your crew at a safe distance and assume the system is live.

NWT UTILITY PROVIDERS

Make sure you know where to find utility provider phone numbers in your community quickly.

To find the phone number for the fuel provider in your community search:

GNWT-infrastructure-fuel providers

Northwest Territories Power Corporation (NTPC) emergencies: 1-855-575-6872.

Water

Shutting off water to a building can help reduce damage if the system is damaged. This is usually done by locating a valve outside the building and using a special wrench or key. Firefighters must make sure they don't shut off water needed for fighting the fire, like water for sprinkler systems.

Heating Fuel

Firefighters should try to find the main shut-off valve or switch for the home heating system only if safe to be that close. It's a good idea to work with local fuel suppliers to understand these systems and how to reduce risks during fire operations.

SALVAGE AND OVERHAUL

Salvage and overhaul operations in firefighting involve protecting property from damage by removing water, smoke, and debris, and ensuring that all hidden fire sources are extinguished to prevent rekindling.

Salvage

The goal of salvage is to protect property from more damage during and after a fire. This can include covering items with tarps or blocking doorways and windows to keep out weather. Defensive firefighters do not go inside buildings to do this work, since they are not trained for it. However, they may help by using tools like air monitors or thermal cameras from outside.

Thermal imaging

Thermal imagers or cameras help firefighters find hidden fire or hot spots that could restart the fire. They can also help find people by detecting body heat and show weak areas in a building. Firefighters must be properly trained to use thermal imaging safely and effectively.

- Start with a scan of the building to spot areas with high heat.
- Check walls, ceilings, and floors for hidden fire or hot spots.
- Look for unusual heat patterns that may show fire spread or weak spots.
- Use the imager/camera to help find any hidden people or pets.

Air monitoring

Air monitoring is used after a fire to check if the air is safe to breathe. It helps find dangerous gases, low oxygen levels, or other harmful substances. This tells firefighters if it is safe to enter or if the area is too dangerous.

- Check air quality before starting any work.
- Keep monitoring air during salvage.
- Stop work and move to safety if air becomes unsafe.

SALVAGE AND OVERHAUL

Overhaul

Overhaul helps prevent a fire from starting again by finding and putting out hidden flames or hot spots. Even after the fire looks out, high heat may still be present and can restart a fire. Defensive firefighters do not enter dangerous areas and must work from the outside. This may include opening walls or crawlspaces using tools like chainsaws to check for fire.

Key Tasks

- Search for and extinguish hot spots.
- Remove smoldering debris.
- Ventilate and clear smoke.
- Monitor structure for collapse risks.
- Prevent rekindling (fire starting again)

Tools and Equipment

- Saws to access hidden areas from the exterior
- Thermal imagers/cameras to detect hidden hot spots
- Portable fans to ventilate smoke and improve air quality
- Salvage covers/tarps to protect belongings during overhaul
- Air monitors to check for hazardous gases or unsafe oxygen levels
- Portable or vehicle-mounted generator to provide power if needed
- Hand tools like axes, crowbars and Halligans for opening exterior walls
- Portable scene lights or headlamps for visibility in dark, smoky conditions

Safety:

- Full PPE and operating at a safe distance: dangerous gases may be present and flare-ups of the fire are possible.
- Communication: maintain radio contact with the team and command.
- Accountability and supervision: a designated officer should oversee the operation.

SKILL DRILLS

SKILL DRILLS

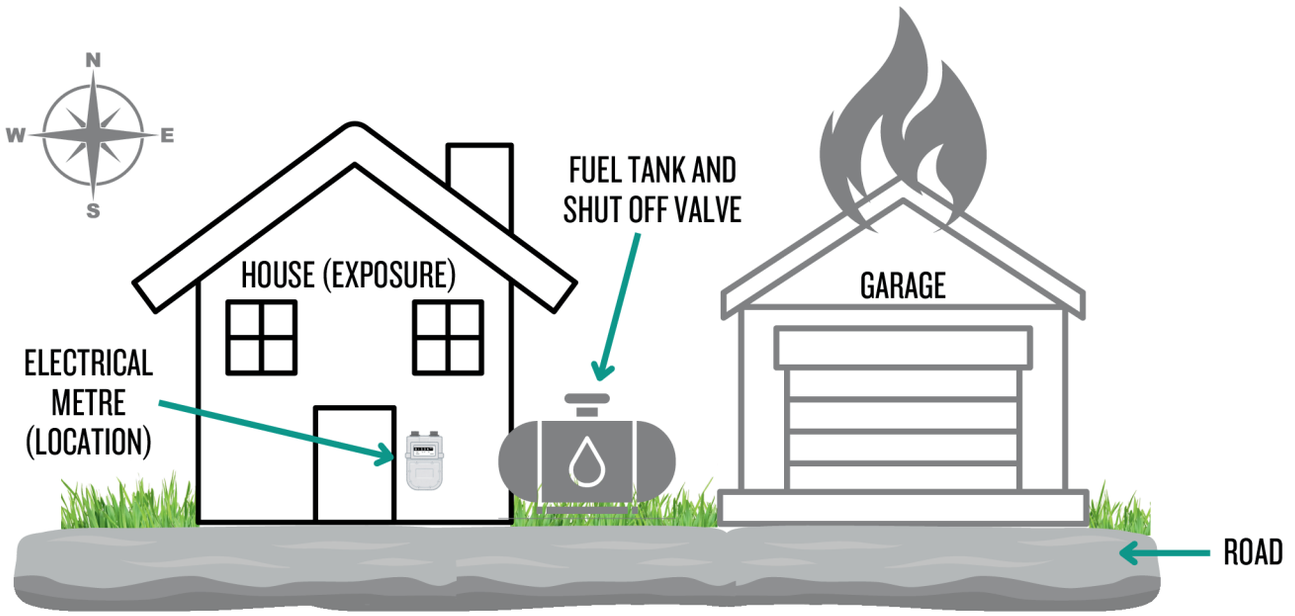
Read the following scenarios and use the image to perform the following Skill Drills

Scenario 1

A call came in reporting a garage fire at 62 Smith Road. All units have been mobilized. Your team is performing an indirect attack on the house next to the garage (the exposure). After informing your superior that you have arrived at the scene, your superior directs you to do the following:

- Contact the electrical utility provider to turn off power to the exposure
- Shut off fuel to the exposure if safe to do so

You provide size-up and situation reports to your superior, determining it is safe to proceed.



Scenario 2

A call came in reporting a garage fire at 62 Smith Road. All units have been mobilized. After informing your superior that you have arrived at the scene, your superior directs you to get prepared by:

- Using the **one-firefighter method** for operating a large handline

Scenario 3

A call came in reporting a garage fire at 62 Smith Road. All units have been mobilized. After informing your superior that you have arrived at the scene, your superior directs you to get prepared by:

- Using the **two-firefighter method** for operating a large handline

Scenario 4

A call came in reporting a garage fire at 62 Smith Road. All units have been mobilized. After informing your superior that you have arrived at the scene, your superior directs you to:

- Perform an **indirect attack** on the burning building and extinguish the fire

SKILL DRILLS

SKILL DRILL 8-1: Contact utility provider to isolate location

1	Don full defensive PPE
2	Determine location of utility shutoff points for fuel, electricity, and water
3	Obtain the contact details for the relevant utility providers
4	Call the utility provider's emergency contact number. Provide location and nature of emergency details
5	Follow instructions from utility provider. They may guide you on specific actions or send technician
6	Ensure utility is successfully isolated. Check shutoff points yourself or confirm with utility provider
7	Inform your superior that the utility has been isolated and provide any relevant updates.

SKILL DRILL 8-2: Shut off exterior fuel supply to building

1	Don full defensive PPE
2	Acknowledge the assignment
3	Locate the exterior gas shut-off valve
4	Close the gas shut-off valve
5	Attach a shut-off or lockout tag and lock if required
6	Notify command that the gas is shut off

SKILL DRILLS

SKILL DRILL 8-3: Operate large handline (one-firefighter method)

1	Don full defensive PPE
2	Select correct size of fire hose for the task to be performed
3	Advance hose into position from which you plan to attack the fire
4	Signal pump operator you are ready for water
5	Open nozzle to allow air to escape hose and ensure water flowing
6	Close nozzle, make pressure loop with hose ensuring nozzle is under hose line coming from apparatus
7	Lash the hose sections together where they cross or use your body weight to kneel or sit on hose line at the point where hose crosses itself
8	Allow enough hose to extend past the section where the line crosses itself for maneuverability
9	Open nozzle and direct water onto designated area




SKILL DRILL 8-4: Operate large handline (two-firefighter method)

1	Don full defensive PPE
2	Select the correct handline for the task at hand
3	Stretch the hose line from the fire apparatus into position then signal that you are ready for water
4	Open the nozzle a small amount to allow air to escape and to ensure water is flowing
5	Advance the hose line as needed
6	Firefighter on the nozzle should cradle the hose on hip while grasping the nozzle with one hand and supporting the hose with the other hand
7	Second firefighter stays 1 metre behind nozzle operator, grasping hose with two hands
8	Open the nozzle in a controlled fashion
9	Direct water onto the fire or designated exposure




SKILL DRILLS

SKILL DRILL 8-5: Perform indirect attack using handline

1	Exit the apparatus donning full defensive PPE
2	Select correct hose line depending on fire type, location, size
3	Advance hose line from apparatus to designated attack location
4	Notify operator/driver that you are ready for water
5	Open nozzle, make sure air is purged from hose line and water is flowing
6	Shut down the nozzle and advance the charged hose line to the location where you will apply water
7	Direct water stream onto upper levels and move stream back and forth
8	Shut off nozzle
9	Reassess fire conditions – watch for changes and reduction in amount of fire
10	Once fire is reduced, fully shut down nozzle
11	Confirm ventilation has been completed
12	Attack any remaining fire, hotspots until fire is completely extinguished

SKILL DRILL 8-6: Extinguish an outdoor Class A fire

1	Don full defensive PPE
2	Perform size-up and give an arrival report. Call for additional resources if needed
3	Ensure apparatus is positioned uphill/upwind of fire and protecting scene from traffic
4	Deploy an appropriate attack line (at least 38 mm in diametre)
5	Open nozzle to purge air from system, make sure water is flowing
6	If using an adjustable nozzle, ensure it's set to proper nozzle pattern
7	Shut down the nozzle until you are in a position to apply water
8	Direct the crew to attack the fire in a safe manner—uphill and upwind from the fire
9	Break up compact materials with hand tools or hose streams
10	Overhaul the fire
11	Notify command when the fire is under control
12	Identify obvious signs of the origin and cause of the fire
13	Preserve any evidence of arson
14	Return the equipment and crew to service

SKILL DRILLS

Final Scenario

After the fire is extinguished, it starts getting dark outside. Your superior directs you to do salvage and overhaul operations. You are are directed to:

- Illuminate the emergency scene
- Overhaul an exterior wall (to make sure the fire is completely out)
- Fold a salvage cover (tarp) for one firefighter use

SKILL DRILL 8-7: Illuminate an emergency scene

1	Don full defensive PPE
2	Inspect all equipment while setting it up
3	Start the portable generator, engage the inverter, or check that there is electrical power in the building
4	Connect cords, plug adaptors, Ground Fault Interrupters (GFI), and lighting equipment
5	Ensure proper grounding and GFI use
6	Ensure scene is adequately and safely illuminated

SKILL DRILLS

SKILL DRILL 8-8: Overhaul an exterior wall

1	Don full defensive PPE
2	Determine which area of the wall will be opened. Open areas most heavily damaged by the fire first, followed by the surrounding areas
3	Use the axe blade to begin cutting near the top of the wall. Cut downward between wall studs. Be alert for electrical switches or receptacles, as they indicate the presence of electrical wires behind the wall
4	Make two vertical cuts, using pick end of axe to pull the wall material away from the studs and open the wall. Work from top to bottom
5	Remove items such as baseboards or window and door trim with a Halligan tool or axe
6	Continue opening additional sections of the wall until the desired area is open
7	Pull out any insulation found behind the wall

SKILL DRILL 8-9: Fold salvage cover for one firefighter use

1	Spread the salvage cover flat on the ground with a partner facing you
2	On the right side of the salvage cover, make a fold at the quarter point of the cover
3	Next, make a second fold that ends in the middle of the cover
4	On the left side of the salvage cover, make a fold at the quarter point of the cover
5	Next, make a second fold that ends in the middle of the cover
6	Fold the two halves together and flatten the salvage cover to remove any trapped air
7	Make 30 cm folds from each end of cover until you reach the centre of the salvage cover
8	Fold the two halves together

LEARNING DEBRIEF

REMEMBER

- Developing proper work habits during training in this course helps ensure safety later
- Do not attempt anything you feel is beyond your ability or knowledge
- Tell someone if you see something that you feel is an unsafe practice
- Continue to learn teamwork and practice working as a team
- A firefighter injured during training should not return until medically cleared for duty

Reflect on the following questions. Jot down notes or sketches in the spaces provided.

Why is it important for defensive firefighters to understand the risks of different fire locations, like lumberyards or chimney fires, before starting operations?	
What are some ways defensive firefighters can protect property and people without entering a burning structure?	
How would tools like thermal imagers and air monitors help defensive firefighters work more safely and effectively during salvage and overhaul?	

APPENDICES

GLOSSARY OF TERMS

Communications

- **ABC Button:** Customizable preset button on radios
- **Channel Selector:** Dial or button to change radio channels
- **Communication Feedback Loop:** Confirming messages by repeating them back
- **Decoding:** Interpreting the received message
- **Emergency Button:** Sends alert for immediate help
- **Emergency Line:** Dedicated line for urgent calls
- **Emergency Traffic:** High-priority message overrides others
- **Encoding:** Turning thoughts into a message
- **Feedback:** Receiver's response to a message
- **Message:** Information being communicated
- **Monitor/Scan Buttons:** Used to listen to multiple radio channels
- **Noise:** Anything that disrupts communication
- **Portable Radio:** Handheld radio for communication
- **Push-to-Talk (PTT) Button:** Press to talk on a radio
- **Receiver:** Person who gets the message
- **Sender:** Person who sends the message
- **Transmission:** Sending a message over radio

Equipment

- **Apparatus:** Firefighting vehicle
- **Deck Gun:** Fixed, high-volume water device on fire trucks
- **Dry Barrel Hydrant:** A hydrant that drains to prevent freezing
- **Handline:** Hose operated by hand
- **Hose Appliance:** Tools used with fire hoses to control flow
- **Hose Couplings:** Connect hoses to each other or a water source
- **Hose Lays:** How hoses are arranged from source to scene
- **Hose Loads:** Hose stacking methods for easy deployment
- **Nozzle:** Controls water stream from a hose
- **Pumper Truck/Attack Engine:** Vehicle with pump, hose, and water for fire attack
- **SCBA** (Self-Contained Breathing Apparatus): Air tank and mask for breathing in smoke-filled areas
- **Standpipe:** Built-in pipe system for supplying water inside buildings
- **Storz-Type Coupling:** Quick-connect hose ends without threads
- **Suction Hose:** Pulls water from static sources
- **Supply Hose:** Delivers water from source to pump
- **Threaded Couplings:** Screw-type hose connections
- **Turnout Gear:** Protective clothing worn during responses

Education and Training

- **Codes and Standards:** Laws and guidelines for fire safety
- **Exit Drills In The Home (EDITH):** Practice home fire escape plans
- **Home Safety Surveys:** Checking homes for fire safety issues
- **NFPA (National Fire Protection Association):** Sets fire safety standards

Fire Science

- **Backdraft:** Explosive ignition when oxygen re-enters a smoldering fire
- **Combustion:** Chemical process of burning
- **Conduction:** Heat transfer through contact
- **Convection:** Heat movement through air or gas
- **Decay Stage:** Fire slows as fuel runs out
- **Fire Tetrahedron:** Fire needs heat, fuel, oxygen, and a chemical reaction to burn
- **Fire Triangle:** Fire needs heat, fuel, and oxygen to start
- **Flashover:** Sudden full-room ignition
- **Fully-Developed Stage:** Maximum burning
- **Growth Stage:** Fire starts spreading and intensifying
- **Heat Transfer:** Movement of heat via conduction, convection, or radiation
- **Incipient Stage:** Fire just igniting
- **Light (Thermal) Energy:** Heat and light given off by fire
- **Mechanical Energy:** Energy from movement, sometimes causes sparks
- **Oxidation:** Reaction of fuel with oxygen
- **Pyrolysis:** Breakdown of material from heat before ignition
- **Radiation:** Heat traveling in waves
- **Smoke Colour:** Helps indicate type of material burning
- **Smoke Explosion:** Ignition of trapped fire gases

Incident Command Structure

- **Chain of Command:** Order of authority
- **Division:** Personnel and resources assigned to a geographic location
- **Emergency Management Organization (EMO):** Coordinates emergency responses
- **Group:** Personnel and resources assigned to a specific task
- **Incident Action Plan (IAP):** Plan for managing an incident
- **Incident Command System (ICS):** Structured approach to managing emergencies
- **Incident Commander (IC):** Person in charge of an incident
- **Operations Function:** Part of ICS that manages tactical operations
- **Span of Control:** Number of people a leader can manage (usually 3–7)
- **Single Resource:** One unit (e.g., one engine or person)
- **Unity of Command:** Each person reports to only one boss

Operations and Tactics

- **Advancing Hose:** Moving hose toward the fire
- **Attack Hose:** Used directly on the fire
- **Charged Hose:** Filled with water, ready to use
- **Defensive Operations:** Fighting fire from a distance
- **Establishing Command:** Identifying who's in charge
- **Evolution:** Planned firefighting tasks or maneuvers
- **Exposure:** Nearby object at risk of catching fire
- **Freelancing:** Acting without direction during an incident
- **Initiating Response:** Units are en route
- **Overhaul:** Checking for and putting out hidden fire
- **PAR (Personnel Accountability Report):** Roll call for safety
- **Rehabilitation:** Rest and recovery for firefighters
- **Salvage:** Protecting property during/after firefighting
- **Scene Size-Up:** Assessing what's happening at the scene
- **Size-Up:** First look and judgment of the fire scene
- **Staging Area:** Place where people/equipment wait near the scene

PPE and Safety

- **Accountability Tag:** Tracks firefighter location and status
- **Bunker Gear:** Full protective firefighting gear
- **Carcinogens:** Cancer-causing substances from fire/smoke
- **Critical Incident Stress Management (CISM):** Mental health support after tough calls
- **Freelancing:** Acting without direction during an incident
- **PPE (Defensive):** Gear for indirect fire attack
- **PPE (Structural):** Gear for entering burning buildings
- **Rehab Officer:** Person monitoring health in rehab area
- **Safety Culture:** Shared values and actions for safety
- **Unacceptable Risk:** Danger too high to allow action

Radio Language and Protocols

- **Arrival on Scene:** Unit has reached the incident
- **Cancelling Response:** Units not needed anymore
- **Clearing the Scene:** Leaving the scene, ready for next call
- **Incident Type:** Describes the emergency
- **Location Indicators:** Help identify where something is
- **Phonetic Alphabet:** A set of code words used to clearly communicate letters over radio
- **Priorities:** Life safety, property protection, incident control
- **Resource Request:** Ask for more units/equipment
- **Situation Report:** Update on the current status

Water Supply

- **Dry Hydrant:** Pipe for pulling water from lakes or ponds
- **Portable Pump:** Moveable water pump
- **Portable Tank:** Temporary water holding tank at the scene
- **Pumper Truck/Attack Engine:** Vehicle with pump, hose, and water for fire attack
- **Static Water Supply:** Water from non-pressurized sources like ponds
- **Water Fill Station:** Spot for refilling water trucks
- **Water Shuttling:** Moving water from water source to scene