



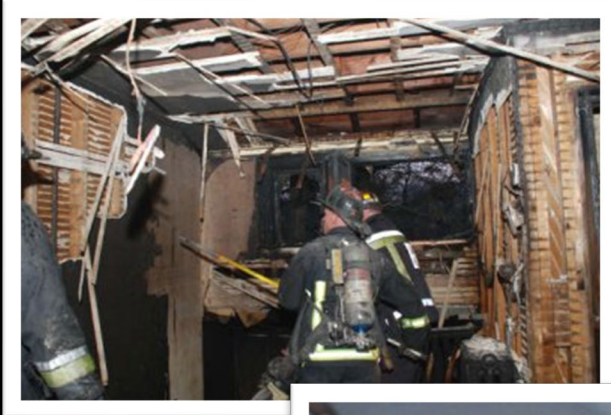
Salvage/Overhaul



Module 9



Salvage is a component of firefighting that can build good public relations



Overhaul is essential to the complete extinguishment of a fire

Salvage Defined

Introduction

The Art

of saving property

Minimizes

damage to a structure and its contents



Achieves

our goals of saving lives *and* property

Incident Priorities

Salvage Operations & Property Protection

Salvage

falls under the property conservation heading of our incident priorities



Classifications of Fire Damage

Kinds of Fire Damage

Direct/Primary

- Caused by the actual combustion process
- Flame, smoke, or heat

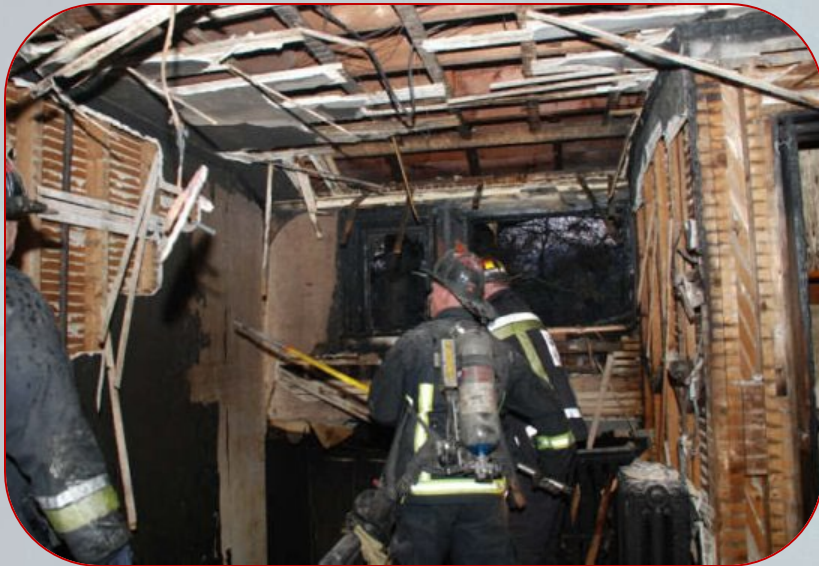


Photo courtesy of PJ Norwood

Indirect/Secondary

- Caused by suppression efforts
- Opening ceilings, walls

Salvage Tools

Salvage Operations & Property Protection

Carried by most fire companies

Shovels

Floor runners

Pumps

Brooms

Salvage covers

Hand tools

Squeegees

Sprinkler tongs

Nails / screws

Pike poles

Wood wedges

Wood lath



Where to Begin

Salvage Operations & Property Protection

Generally

begin on the fire floor
or the floor below

Plan

how to direct water
out of the building

Ceilings

should be checked for
accumulating water

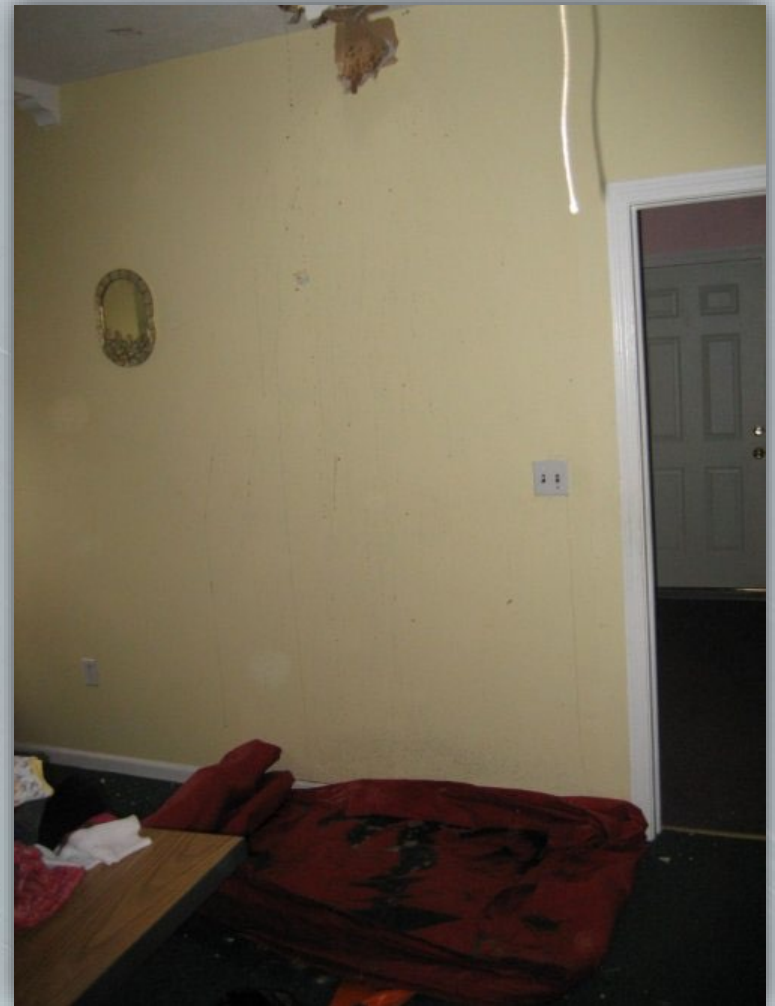


Photo courtesy of Joe Hilpert

Salvaging Furniture

Salvage Operations & Property Protection

Group

furniture into piles

Place

tall furniture in
center of the pile



Salvage Covers

Salvage Operations & Property Protection

Most common salvage tool

- Thrown over the piled furniture
- Tucked under the pile to protect from splashes
- 12'x18', 20 lbs.



Plastic sheeting

- Used in place of salvage covers
- Cut to size and disposed of when done

Salvage cover numbering

T&E Manual 307.001

- Salvage covers utilize a numbering system incorporating a two-digit station number and a salvage cover letter for easy identification. Hallway runners and carryalls do not utilize a numbering system and have no markings.
- Example:** Salvage covers for Station 5 shall be marked as follows: 05A, 05B, 05C, and 05D.
- This numbering system shall be clearly marked on all four corners (one side only) and in the center of the salvage cover to assist in easy identification of a properly folded salvage cover



- All stations shall be issued salvage covers based on the number and type of apparatus assigned to the station. The following salvage cover station inventory shall be used:
- Two per fire engine assigned to the station (front line and reserve)
- Five per fire truck assigned to the station (front line and reserve)
- Two additional for each front-line engine assigned to the station
- Five additional for each front-line truck assigned to the station

- Completely open salvage cover



- Fold the outside edge over to the center of salvage cover



FFD Fold

T&E Manual 307.001

- Bring the fold over to the center of the salvage cover



- Fold the other half of the salvage cover in the same manner



FFD Fold

T&E Manual 307.001

- Fold one end to just short of the center of salvage cover



FFD Fold

T&E Manual 307.001

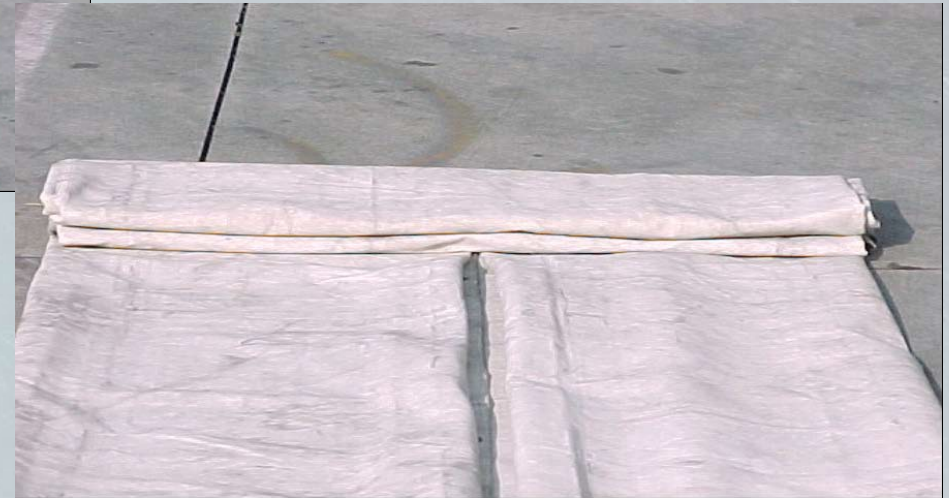
- Again fold edge to center of cover, aligning with first fold



FFD Fold

T&E Manual 307.001

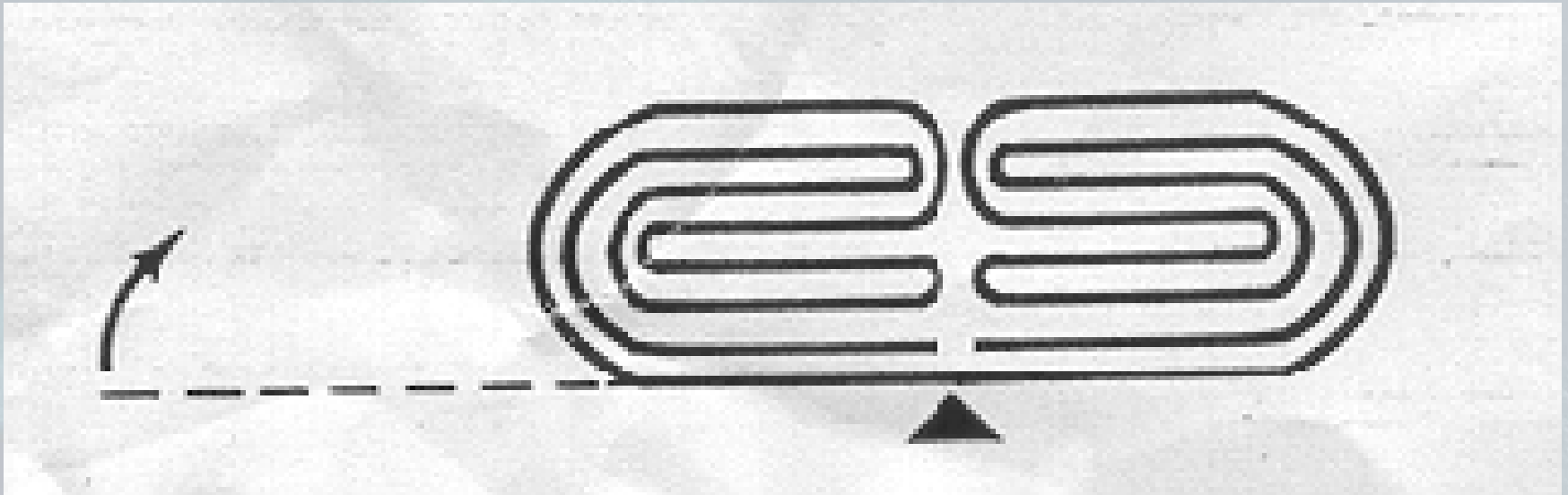
- Once again, bring folded edge to center of cover, aligning with previous folds



FFD Fold

T&E Manual 307.001

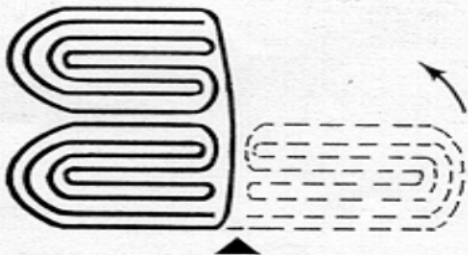
- Fold the other end in a similar manner, leaving about four inches between the set of folds



FFD Fold

T&E Manual 307.001

- The space between the folds will serve as a hinge; rotate one set of folds over on top of the other to complete fold.



Water Chute

Salvage Operations & Property Protection

Directs

water away from an area

Made

with covers, pike poles,
and ladders



Catchalls

Salvage Operations & Property Protection

Rolling

up the sides on a salvage cover to create a small pool



TUBS

T&E Manual 307.001

- Tubs are designed to provide a water source during water shuttle operations when hydrants or other water sources are not readily available.



Waterproof folds

T&E Manual 307.001

- Waterproof folds are often needed to connect two hallway runners or salvage covers together when protecting property from water damage.
- The waterproof fold begins by folding the end of the first cover 18 inches back on itself. A second cover is then laid on top of and even with the end of the first fold.
- The two covers are then folded nine inches back towards the second cover and then folded nine inches again in, the same direction, forming a waterproof fold.

Care and Maintenance

Salvage Operations & Property Protection

Wash

and dry after every use



Check

for holes or tears

Care and Maintenance

T&E Manual 307.001

- Hallway runners, carryalls, and salvage covers shall be used at emergency incidents and shall be thoroughly examined, checked for damage, washed, and hung to dry within 24 hours of use.
- **Note:** To inspect for holes, hold them up to the light and look for light rays penetrating on the shadow side. Once clean and dry, circle any holes with chalk and route to the shop using a wired repair tag (FD-37).

Water Removal Equipment

Salvage Operations & Property Protection

Water vacuums

- Carried on firefighter's back
- Removes limited amount of water



Dewatering pumps

- May be several hundred GPM
- Electric or engine driven

Salvage Master

T&E Manual 307.003

- The “Salvage Master” backpack-style, wet vacuum (Figure 1) is carried on all truck companies. It is designed for fast, efficient removal of water and ashes from all types of floors, carpets, and confined spaces.
- The capacity of the “Salvage Master” is approximately six gallons of water.
- While this unit is not a water pump, it will fill to capacity in approximately 17 seconds and empty in approximately 9 seconds from a straight draft.

Sprinkler Systems

Salvage Operations & Property Protection

Controls fires

- Confines fire to an area
- Proven to protect property from primary fire damage



Potential water damage

- Pre-plan sprinkler riser locations and control valves

Stopping a Sprinkler System

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Shut Off

the riser only when ordered by the IC

- Close the riser control valve
- Open the main drain
- The system will no longer be able to protect from fire



www.fireengineering.com



Stopping an Individual Sprinkler

Salvage Operations & Property Protection

Sprinkler

tongs or wooden wedges can stop a sprinkler

Keeps

the remainder of a system in service

Firefighters

will get very wet installing these devices



Overhaul Defined

Overhaul

Overhaul is ensuring the fire is out and leaving the building as serviceable as possible



Minimize

the chances of rekindles

When and Where

Overhaul

Overhaul

is generally done after the fire is under control



Open

void spaces, walls,
ceilings, floors

Overhaul Tools and Equipment

Overhaul

Overhaul is hard physical labor using

Axes

Shovels

Pike poles

Power saws

Halligan

Kelly tools

Rubbish hook

Wheelbarrows

Carryalls



Overhaul Techniques

Overhaul

Use

the right tool for the job



Allow

the tool do the work

Detecting Hidden Fire

Overhaul

Look for

- Discolored paint
- Blistering paint
- Deep charring
- Smoke from around windows or doors
- Small sparks or cinders
- Openings that would allow travel



Technology for Detecting Fire

Overhaul

Thermal

Imaging
Camera (TIC)



Allows

firefighters to detect heat
without tearing a room apart

Opening Ceilings

Overhaul

Open

the ceiling above the main fire



Get

ahead of travelling fire

- Pull ceiling to limit fire spread
- Open the entire involved area
- Allows for extinguishment and examination