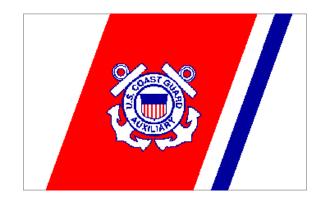


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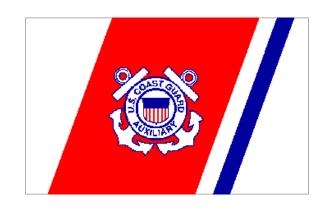




## Mission Oriented Operations Fires - Objectives

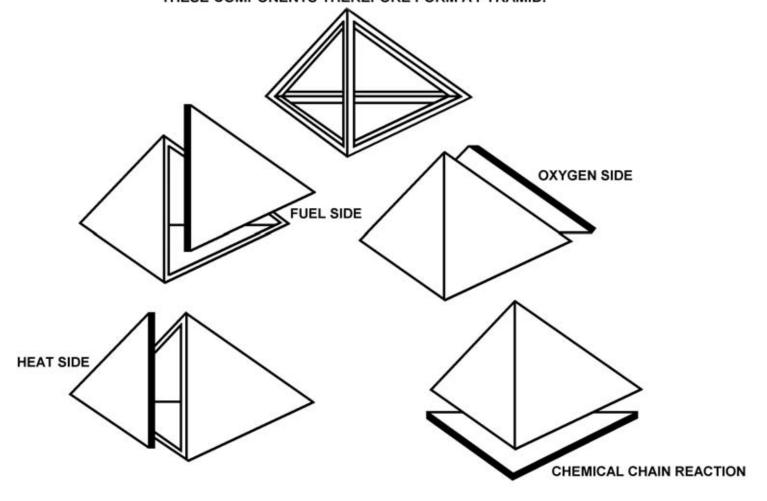
- Explain the "Fire Tetrahedron"
- Identify the Different Classes of Fires
- State the Fuel Associated with Each Class

State the Primary Extinguishing Agents
 Associated with Each





THE "FIRE TETRAHEDRON" IS A FOUR-SIDED SOLID WHICH INCLUDES THE CHEMICAL CHAIN REACTION AS ANOTHER COMPONENT NECESSARY FOR BURNING. THESE COMPONENTS THEREFORE FORM A PYRAMID.







Class	Fuel Sources	Primary Extinguishing Agent	Primary Effect
A	Common combustible materials such as wood and wood-based materials, cloth, paper, rubber, and certain plastics.	<ul><li>Water</li><li>PKP (dry chemical)</li></ul>	Removes the heat element.
В	Flammable or combustible liquids, flammable gases, greases, petroleum products, and similar products.	<ul> <li>Foam Aqueous Film         Forming Foam (AFFF)     </li> <li>CO<sub>2</sub></li> <li>PKP (dry chemical)</li> </ul>	Removes the oxygen element.
С	Energized electrical equipment, conductors, or appliances.	<ul><li>CO2 (Carbon Dioxide)</li><li>PKP (dry chemical)</li></ul>	Removes the oxygen element, and temporarily removes elements of oxygen and heat.
D	Combustible metals, such as sodium, potassium, magnesium, and titanium.	<ul><li>Water (high velocity fog)</li><li>Sand (placed underneath the metal)</li></ul>	Removes the heat and oxygen elements.



### Fire Extinguishers

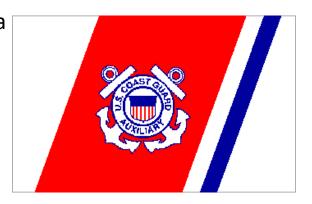


Rated class 10-B:C, the First Alert® Marine Fire Extinguisher is ideal for use on all types of boats.

The Fire Extinguisher is formulated for fighting flammable liquid and electrical fires.

Its white color matches typical marine color schemes. A durable metal head is designed to meet demanding needs.

Once used, the unit can be recharged by a certified professional





Explain the safety precautions that must be used when using CO2 and Halon.

**C02:** Contact only insulated horn handle to avoid freeze burns.

**C02:** Ground canister to prevent static discharge shock.

**Halon:** Compartment must be ventilated thoroughly before space can be entered.

Action - Operate a CO2 Fire Extinguisher (simulate)

Action - Operate a Dry Chemical Fire Extinguisher (simulate)

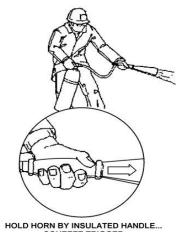
Seamanship Manual 18-9,10, 13, 19



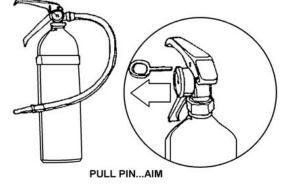
# CO2 & Dry Chemical Fire Extinguisher Operation

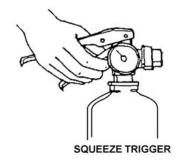






SQUEEZE TRIGGER





Dry Chemical Extinguisher

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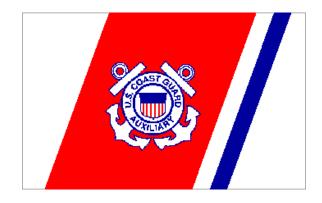
CO2 Extinguisher



#### Reporting Fire aboard a Vessel

Notify StaPorts at the earliest opportunity. Keep them fully advised of the situation

- Give position of vessel on fire
- Nature of Fire (Class A, B, C, D if known)
- Identify Number of Persons on Board (POB) of burning vessel or in the water (PIW)
- Report your Intentions (Rescue of PIW, staying upwind, firefighting)
- Keep StaPorts advised of changing situation and status of personnel





Use the following procedures when battling a fire aboard other boats:

- Brief crewmembers on appropriate procedures
- Assign each crewmember specific duties
- While in route to scene, establish comms with distressed boat
- Approach the boat from upwind (away from smoke)
- If no one on board, circle the boat (at a safe distance) searching for PIWs
- Advise all persons aboard the distressed vessel (DV) to move away from smoke filled area topside
- Attempt to determine the extent and source of the fire. If it is not oblivious, ask the personnel aboard the DV where the fire is located
- If the fire is beyond the Auxiliary crew fire-fighting capabilities, evacuate the DV persons and call for assistance



# Mission Oriented Operations Fires Summary

BC Qualification Fires Objectives

Explain the Fire Tetrahedron

Safety precautions that must be used when using CO2 and Halon

Operation of CO2 & Dry Chemical Fire Extinguishers

Reporting Fires aboard a vessel

How to fight a fire aboard a boat

