



FIRING OPERATIONS

C-234 Intermediate Firing Methods

FIRING EQUIPMENT



- ### Fusees
- ▣ Used to ignite fine fuels
 - Grass
 - Forest litter
 - ▣ Characteristics
 - Light weight
 - Portable
 - Produces a 2-4" flame
 - Suitable for small projects
 - Readily available
 - Available in 5 to 30 minute burn times
 - Wands can be assembled
 - Not the same as road flares; do not burn as hot or as long
 - Classified as a flammable solid



- ### Correct Way
- ▣ Put the flame of the fusee at the base of the vegetation
 - It will ignite and carry fire in the fuel bed more effectively
 - ▣ Use the wand not your back

- ### Drip Torch
- ▣ Characteristics
 - Capable of handling most firing operations
 - Used to ignite all fuel types
 - Forest litter
 - Grass
 - Brush
 - Ladder fuels
 - Heavy fuels
 - Easily Carried on engines and utility vehicles





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Parts

- Know your torch
- 2 Safety Features
 - Fuel Trap: prevents flashback into the tank
 - Check Valve: (in the tank cover) 2nd level of protection against flashback

Drip Torch

- Liquid fuel device
 - Fill only ¾ full
 - 2 parts diesel fuel
 - 1 part gasoline
- Fuel classified as a combustible liquid

Drip Torch at Work

In ideal condition and used correctly, a drip torch can last up to 1 hour or 1 mile

Safety

- Possible problems
 - Defective vent
 - Improper mix
 - Poor gasket seal

Drip Torch Safety (cont.)

- Fuel may “spurt” out of spout in hot conditions or if the torch is over fueled.
- Always manage the drip torch
 - While in use
 - Setting down the torch
 - While re-fueling

Terra Torch

The Terra Torch requires separate and specific training prior to use.



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Terra Torch (cont.)

Trailer mount




Skid Mount



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Terra Torch (cont.)


- ❑ Used when other ignition devices are ineffective
- ❑ Range up to 100 feet
- ❑ Requires specialized training
- ❑ Requires crew of 2 to 3 personnel



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Terra Torch (cont.)

- ❑ Fuel is a mixture of alumagel/surefire and gasoline
- ❑ Dispenses fuel under pressure through a hand held nozzle
- ❑ Classified as a flammable liquid



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Terra Torch Hazards

- ❑ **Radiant heat**
 - Additional PPE For thermal protection
- ❑ **Mixing Fuel**



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Hand Thrown Flares

- 4 inch and 2 inch Flares



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- Used in all fuel types
- Follow manufacturer's recommendations for use

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Hand Thrown Flares "BIG SHOT"

- ❑ **Characteristics**
 - Fuse burn time 30 to 40 seconds
 - Flare burn time 10 seconds at 4,000°F
 - Ignited material covers 15 to 25 foot diameter
 - Classified as a flammable solid



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Hand Thrown Flares "Chubbie"

- Characteristics
 - Fuse burn time 10 to 15 seconds
 - Flare burn time 5 seconds at 4,000°F
 - Ignited material covers 5-6 foot diameter
 - Classified as a flammable solid



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Hand Thrown Flares "Stubby"

- Characteristics
 - Hand thrown or launched with Fire Quick II and III
 - Fuse burn time 10 to 15 seconds
 - Flare burn time 5 seconds at 4,000°F
 - Ignited material covers 5-6 foot diameter
 - Classified as a flammable solid



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Hand Thrown Flares (cont.)



IGNITION DEVICES USED WITH AIRCRAFT



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Helitorch

- Used in all fuel types
 - Can ignite fuels with high fuel moisture
 - Capable of burning standing fuel and continuous ground fuels

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Helitorch (cont.)

- Produces large amounts of fire in a short period



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