**Grenadier Knowledge**

**ALLWAYS take HE over HEDP unless a light armor threat is expected. HE has a superior fragmentary pattern to cause casualties. The HEDP sacrifices fragmentary pattern for light armor penetration and has a higher failure (du) rate. HE = big boom. HEDP = small boom.

Do not under-mount the M320. Always carry it in the standalone configuration. Under-mounting decreases the effectiveness of both the M4 and the M320. The increased weight unbalances the weapon and increases fatigue during carry. Added bulk impedes firing positions and decreases accuracy. Used as a standalone, the M320 is more accurate, easier to operate, allows the grenadier to focus on one weapon system, and it is easier to grab the M320 if the grenadier becomes a casualty. Grenadiers patrol with M4 at the ready (to react to immediate and/or short range contact) and have M320 holstered for rapid transition.

Always use the sights and buttstock.

**Duties and Responsibilities**

- The M320 is the grenadier’s PRIMARY weapon system, the M4 is the SECONDARY.
- The M4 should only be used if the target is too close to use the M320.
- Know leaf-sight increments without looking.
- Keep ammunition clean and dry.
- Aluminum casing is easily dented; dented grenades cause chamber/extraction issues.
- Identify 40 mm grenades by shape and color. Know all minimum safety constraints.
- Understand how to sense and adjust fire.

**Fire Control Measures**

Pre-planned fire control measures are critical to the effective use of grenade launchers.

**Leaders provide:**
- Engagement criteria
- Target priority
- Munition selection criteria (HE? Smoke?)
- Limits of fire (such as being near friendlies)

**Sensing and Adjusting Fire**

Grenadiers sense where the round landed relative to the target. Then adjust elevation and deflection to hit the target.

**Elevation (range):**
- **Short.** Impact between you and target
- **Over.** Impact beyond target
- **Target.** Impact hits the target
- **Range correct.** Impact left/right, range good
- **Doubtful.** Impact left/right, range unknown

**Deflection (deviation/direction):**
- Right/left of target
- On-line with the target

**Grenadier Knowledge**

**Field of View**

- High power IR aiming laser and illuminator
- Low power IR aiming laser and illuminator
- Low power IR aiming laser only
- Dual Low Display: dL
- Dual High Display: dH
- High power IR aiming laser and illuminator

**Accuracy:**

- **Range:** 400 m
- **Weight:** 15.5 ounces

**Note:** IR lasers visible with night vision only.

**Smoke**

- Smoke can be used for direct fire control (lift/shift).
- Smoke obscures enemy vision and masks friendly movements (including breaking contact).

**Illumination/IR Illumination**

- Illumination can be used for direct fire control (lift/shift).
- Avoid using illumination during friendly air support, hanging parachute flares will interfere with the aircrew’s night vision.
- IR illumination requires night vision devices to see.
- Wind will shift direction of a parachute flare.

**High Explosive/High Explosive, Dual Purpose (HE/HEDP)**

- HE flushes enemy out of cover.
- HE fixes the enemy in place.
- HEDP used for lightly armored vehicles.
- HE provides small blast/overpressure.
- HE simulates indirect fire if used in succession.

**Legend**

- **DNS** day/night sight
- **HE** high explosive
- **HEDP** high explosive, dual purpose
- **mm** millimeters
- **in.** inches
- **LRF** laser range finder

**Example Loadout (13 Grenades):**

- 9 HE
- 4 smoke
- (mission dependent)

12 in the bandoleer, 1 HE in the tube
- HE on the right, smoke on the left.

**Grenade Launchers**

- November 2010, Figure 1-8