81mm and 60mm Mortars in OIF

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OVERVIEW

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Mortars in 1st Bn, 2d Marines

- 81mm Mortar Platoon
  - 8 guns in Weapons Company
  - Organized in 2 sections, capable of independent employment
  - Mounted in organic HMMWVs during OIF
  - Battalion asset
- 60mm Mortar Section
  - 3 guns per section, 1 section per rifle company
  - Mounted in Amphibian Assault Vehicles during OIF
  - Company asset

Equipment

- M252 81mm Mortar
  - Dahlgren MBCE Model 100A version 1.0.45.1, running on NEC MobilePro 790
  - M16 plotting board
- M224 60mm Mortar
  - M19 plotting board

Ammunition

- 81mm:
  - M889, M889A1 HE/PD
  - M821A1 HE/MO
  - M853A1 Illumination
  - M819 RP (on hand, never fired)
- 60mm:
  - M720 (PD) and M888 (MO) HE
  - M721 Illumination
  - M722 WP

1/2 Mortars in Combat

- Combat operations at An Nasiriyah, Iraq, 23 Mar-02 Apr 2003
- 81mm mortars in the offense, 23 Mar 2003
  - Hip-shoot on first enemy contact during approach march
  - Close quarters urban fight inside An Nasiriyah
    - Direct lay, danger close, fires within 150m of mortar position and 50m of supported friendly troops
  - Consolidation
- 81mm mortars in the defense, 24 Mar-02 Apr 2003
  - 30+ fire missions conducted in support of all four maneuver elements
    - All missions except one occurred on 24 March
  - Engagement ranges from 2000-5000m
  - Conventional lay and direct alignment
  - Targets: infantry in open and in buildings, light vehicles, enemy mortars
  - HE/PD and MO, illumination
  - Fired in 360°

1/2 Mortars in Combat (cont)

- 81s Fire Direction
  - Mortar Ballistic Computer was primary for all computations except direct lay missions
  - Plotting board always used to check MBC data
  - No use of MET
  - First rounds were as accurate as the target location

1/2 Mortars in Combat (cont)

- 60mm mortars in the offense, 23 Mar 2003
  - Handheld and direct lay
  - Engaged infantry in the open and light vehicles
  - Obscuration smoke to screen movement
  - One M224 system destroyed, one damaged by enemy fire
- 60mm mortars in the defense, 24 Mar-02 Apr 2003
  - Engagement ranges <1000m
  - Direct lay, handheld, and conventional lay with FDC
  - HE and illumination

Observations

- 81mm and 60mm mortar systems were durable and reliable through 6+ weeks in field conditions
- Weight of M252 81mm system
  - 81mm mortarmen are overloaded even for short foot movements
- Direct lay and handheld capabilities are vital
- All ammo types were reliable and effective
- Packaging of M889A1/M821A1 is superior to that of M889/M821

Observations (cont)

- 81mm smoke is of limited value for obscuration, good for marking targets
- Standard illumination is still needed (vs. IR illum with night vision)
- Lethality of 81s and 60s adequate for conventional mortar missions
  - Fit mortars into a combined arms plan
- Polar call for fire preferred vs. grid or shift
  - GPS, compass, and laser rangefinder yield accurate polar target coordinates
- Range of 60mm ammo sufficient for company operations

Observations (cont)

- Range of 81s
  - Adequate for battle position defense
  - Can be strained in a mechanized offense and in a strongpoint defense
  - Shortfalls can usually be addressed through planning and employment considerations
  - Some situations reveal a gap in range coverage between artillery and 81s
    - 120mm mortars?

Observations (cont)

- Would be nice to have:
  - Mount system for firing from vehicle (as in LAV mortars)
  - Prefab insert for HMMWV stowage
  - Better aiming stakes
    - Built-in NADs, more durable, easier to drive in
  - More durable compass than M2
  - Better system for manual carry of ammo

QUESTIONS?

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