Chapter 11-Patrol Lane

P1: Adjust Indirect Fire

Based on:
061-COM-1000-Adjust Indirect Fire
071-326-0512-Estimate Range

Task: Call for indirect fire. Adjust indirect fire. Fire for effect.

Condition: You are a senior leader in a platoon or company during a traveling over watch movement in a non-CBRNE environment. Your adjacent unit has come under fire from (Grader states type and size of target, as well as cardinal direction to target) and is requesting fire support. Do you identify your target? You have no Forward Observer in your element. You have a 10-digit grid to your location and (Grader states type of mortars/artillery) available.

Standard: Transmit a call for fire, utilizing a grid mission, to the FDC within three minutes of target identification, locating the target within 250 meters. State direction to target within 100 mils/5 degrees with or before the first correction. Adjust fire to within 50 meters of the target using at least two but no more than six bracketing corrections, calling each adjustment within 45 seconds of the previous round impact. Fire for effect, transmit the results, and end the mission within 30 seconds of the final adjusting round impact. Transmitting and Adjusting the Call for fire will be performed in sequence, using the proper radiotelephone pronunciation and procedures, with 100% accuracy.

Station Requirements: A protractor, military map with the correct declination diagram, and compass. Mil-reticle binoculars or other magnified optical device with mil markings and a stable platform to view the target. The 10-digit grid to the Candidate's location and all call signs required. Do not use the actual test site location as the candidate's position. Two operational radios, powered on, with operational frequencies programmed. Laminated paper, superfine point alcohol pens, eraser, and a basic calculator. While all information will be available in the holding area, during testing the Candidate must not be given any Graphic Training Aids (GTAs), cheat sheets, etc. At the test site, the Candidate must not be able to see any of the information/equipment until time has started. Grader must have a cheat sheet/overlay for the Candidate's initial target plot.

Target setup: The intent of this task is for the Candidate to have to look through binoculars and talk on the radio during the entire task rather than stand over a terrain model/sand table. As a result, a target such as a building or fighting position must be created to scale based on the desired distance and the actual distance from the Candidate. The terrain model/sand table should not be terrain associated with the target location on the candidate's map.
The Grader will stand at the target location and after saying, "Shot over", will move to the calculated location. Upon moving to the impact area, the Grader will raise one hand for several seconds to signify that the round has impacted and cue the Candidate to begin their next calculation. The Grader must know the exact distance scale to mark the round impacts accurately based on the Candidates corrections. For example, at 2000 meters a 25-meter-long fighting position will appear as 12.5 mils and a 50-meter-long building will appear as 25 mils. If this situation were scaled down to 50 meters away from the Candidate:

- That same 25-meter fighting position will be .625 meters long and still appear as 12.5mils.
- That same 50-meter building will be 1.25 meters long and still appear as 25 mils.
- If the Candidate makes a 50-meter correction, the Grader will move 1.25 meters.
- If the Candidate makes a 400-meter correction, the Grader will move 10 meters.

At 4000 meters a 25-meter-long fighting position will appear as 6.25 mils and a 50-meter-long building will appear as 12.5 mils. If this situation were scaled down to 50 meters away from the Candidate:

- That same 25-meter fighting position would be .3125 meters long and still appear as 6.25mils.
- That same 50-meter building would be .625 meters long and still appear as 12.5 mils.
- If the Candidate makes a 50-meter correction, the Grader will move .625 meters.
- If the Candidate makes a 400-meter correction, the Grader will move 5

meters. Other distances or target sizes may be used, but:

- They must be represented accurately and to scale.
- The Candidate must know the actual size of the enemy target.

The simulated target should be far enough away to require the Candidate to use the binoculars.

Transmit the Call for Fire:

1. Candidate plots their location on the map.
2. Candidate determines direction to target using compass.
3. Candidate estimates distance to target using mil-relation method based on known size.
4. Candidate plots the enemy location on the map.
5. Candidate transmits call for fire to the FDC using three transmissions.
    a. Send observer identification and warning order.
    b. Send eight-digit grid to the target location. ***Must be accurate within 250 meters.***
    c. Send target description, method of engagement, and method of fire and control (direction if desired).

Adjust Fire:

1. If not already sent, give direction to target within 100 mils or five degrees as a four-digit number.
2. Adjust rounds. ***Grader will stand at or point to the Candidate's initial impact location. Regardless of how accurate the grid was, the Grader should put the initial impact far enough away to require at least two corrections. All impact locations must be given accurately based on the target scale and the Candidate's stated corrections.***
    a. Spot each round when it impacts as right or left, over or short of your target.
    b. Determine corrections for deviation left or right of the target. Measure the horizontal angle in mils, using reticle pattern in binoculars. Estimate range to target and divide by 1,000. This is the Observer-Target (OT) factor. If OT distance is 1,000 meters or greater, the OT Factor is expressed to the nearest whole number. If OT distance is less than 1,000 meters, the OT factor is expressed to the nearest 1/10th. For example, 800 = 0.8. Multiplying the OT factor by the deviation measured in mils produces deviation corrections in meters.
    c. When the first range spotting is observed, make a range correction that would result in a range spotting in the opposite direction. ***NO-GO if the Candidate does not bracket correctly.*** For example, if you estimate that the first round impacted 50 mils left and 250 meters short on a target that is 2100 meters away, add enough to get an over on the next round. You must add 400 meters to start successive bracketing procedures. With an OT factor of 2, the round impacted 100 meters left. Your correction to the FDC is "RIGHT 100-ADD 400-OVER."
    d. Continue splitting the range bracket until a 100-meter bracket is split or range correct spotting is observed, maintaining deviation online, and transmitting all corrections to the FDC in meters. ***After each correction the Grader will state, "Shot over", and the Candidate will reply with "Shot out." The Grader will move to the new impact location, raise one hand for several seconds, and wait for the Candidate's next correction.***
    e. Use the following guide to establish a bracket. When the estimated round impact distance to the target is:
        1. More than 400 meters, add or drop 800 meters.
        2. More than 200 but less than 400 meters, add or drop 400meters.
        3. More than 100 but less than 200 meters, add or drop 200meters.
        4. Less than 100 meters, add or drop 100 meters.
        5. Add or drop 50 meters and announce Fire for Effect.

Fire for Effect:

1. When a 100-meter bracket is split or a range correct spotting is made, the fire-for-effect phase is entered.
2. Observe the results of fire for effect. Give a brief description of what happened to the target.

Example: "EOM, TARGET DESTROYED, ESTIMATE TWO CASUALTIES, OVER.