



MATE: Machine Analysis of Tactical Environments v 1.1

Date: 09/20/11. Time: 13:13:57. Description: Operation Moshtarak: The Battle for Marjah, February 13, 2010



Terrain analysis:

Water: 0.30 % of map.
 Swamp: 0.00% of map.
 Forest: 1.38% of map.
 Urban: 5.30% of map.
 Scrub: 0.52% of map.
 Light Road: 4.25% of map.
 Good Road: 0.00% of map.

Elevation analysis:

Elevation ranges from 775 meters to 790 meters.
 The average elevation is 775 meters.

BLUEFOR Analysis:

Unit ID	Type	Location (X,Y)	Terrain	Elevation	Strength	Morale	Group	Threat Level	Friend Level
0	☒	660, 500	Clear	775	50	50	0	-5.91	25.98
1	☒	680, 530	Clear	775	50	50	0	-5.42	11.47
2	☒	710, 560	Clear	775	50	50	0	-4.89	24.41
3	☒	730, 520	Clear	775	50	50	0	-4.88	23.47

REDFOR Analysis:

Unit ID	Type	Location (X,Y)	Terrain	Elevation	Strength	Morale	Group	Threat Level	Friend Level
0	☒	360, 420	Urban	775	50	50	0	-5.71	25.22
1	☒	360, 390	Urban	775	50	50	0	-5.55	5.03

2	☒	360, 320	Urban	775	50	50	0	-5.10	2.97
3	☒	370, 280	Urban	775	50	50	0	-4.92	20.15

Predicate Generation:

ID	Predicate Statement
0	BLUEFOR consists of 1 group.
1	Weighted strength of BLUEFOR Group 0 is: 200.
2	The elevation at the center of BLUEFOR Group 0 is: 775.
3	The weighted elevation metric for BLUEFOR is: 51666.
4	REDFOR consists of 1 group
5	Weighted strength of REDFOR Group 0 is: 200.
6	The elevation at the center of REDFOR Group 0 is: 775.
7	The weighted elevation metric for REDFOR is: 51666.
8	The enemy group that can be reached quickest by BLUEFOR Group 0 is REDFOR Group 0.
9	REDFOR Group 0's frontage is an unbroken line of overlapping ROIs.
10	0 of 4 BLUEFOR units crossed an ROI to reach the Flanking Goal.
11	The Anchored Line Value is 0.00.
12	REDFOR flanks are not anchored.
13	The Interior Line Value is 90509. (BLUEFOR has interior lines).
14	There are 7 choke points between REDFOR and its avenue of retreat.
15	REDFOR's avenue of retreat is not restricted.
16	There are 8 choke points on BLUEFOR's avenue of attack.
17	BLUEFOR's avenue of attack is not restricted.
18	Unweighted BLUEFOR strength = 200.
19	Unweighted REDFOR strength = 200.
20	The weighted ratio of REDFOR / BLUEFOR = 1.000000.
21	BLUEFOR has the superior force.
22	The weighted elevation ratio of REDFOR / BLUEFOR = 1.000000.
23	The slope of the attack is = 0.01.
24	BLUEFOR is attacking across level ground.

Tactical Analysis:

ID	Tactical Statement: Mortar Platoon
25	BLUEFOR has a weapons platoon (60 mm. mortar) within range. Unit ID 3.
26	Closest REDFOR unit (Unit ID 0) to Mortar Platoon.
27	Range: 851 meters from Mortar Platoon to REDFOR Unit 0.
28	Uninterrupted line of sight from Blue Unit 3 to Red Unit 0.



ID	Tactical Statement: Suggesting Envelopment Maneuver
4	REDFOR consists of 1 group
12	REDFOR flanks are not anchored.
17	BLUEFOR's avenue of attack is not restricted.
21	BLUEFOR has the superior force.
24	BLUEFOR is attacking across level ground.
∴	Tactical Statement: Suggesting Envelopment Maneuver
→	Envelopment Maneuver (Right Flank):
⊠	Blue Unit 0: Fixing Force advancing to 400 meters to fix the enemy in place.
⊠	Blue Unit 3: Fixing Force, not advancing, fire support to hold the enemy in place.
⊠	Blue Unit 1: Flanking Force. Approximate distance of maneuver: 3222 meters. Approximate time for maneuver: 69 minutes.
⊠	Blue Unit 2: Flanking Force. Approximate distance of maneuver: 3177 meters. Approximate time for maneuver: 68 minutes.



→ Envelopment Maneuver (Left Flank):

☒ Blue Unit 0: Fixing Force advancing to 400 meters to hold the enemy in place.

☒ Blue Unit 3: Fixing Force, not advancing, fire support to hold the enemy in place.

☒ Blue Unit 1: Flanking Force. Approximate distance of maneuver: 1222 meters. Approximate time for maneuver: 26 minutes.

☒ Blue Unit 2: Flanking Force. Approximate distance of maneuver: 1288 meters. Approximate time for maneuver: 27 minutes.

