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The Chiefs of Staff of the Finabel land forces have approved the draft submitted to them with the reference note, and the attached document is thereby officially promulgated.

(Signed) L. VAN DEN ABBEELE
Major
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Finabel

Promulgation of report Finabel Nr M.16.R

TRAINING FOR MILITARY OPERATIONS

IN URBAN AREAS

DATE OF PROMULGATION : September 2007

Finabel



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BIBLIOGRAPHICAL DATA STUDY M.16.R	
1. <u>References</u> : PME meeting 1/2005	2. <u>Other references</u> : - Finabel Study M.11.R “Possible types of cooperation between Finabel countries in the field of instruction and training” (including the updated Complementary Annex) - Finabel Study M.17.R “Minimum training standards for Combat Support (CS)/Combat Service Support (CSS) personnel engaged in operations” - Finabel Study M.18.R “Taking into account the lessons of recent conflicts to introduce changes in instruction and training in Finabel countries” (reworking Finabel study M.6.R).
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11. Summary :

This study focusses on how the armies of Finabel member states train their soldiers and units, for military operations in urban terrain (MOUT).

The aim of this report is to study how Finabel countries can optimise training methods and interoperability for the preparation of soldiers and units to operate in urban terrain, across the full spectrum of conflict.

12. Abstract :

a) Usefulness of the study

Modern military missions require the involvement of many nations to participate in operations in urban areas. Modern urban operations can change quickly from low intensity peace-keeping to high intensity war-fighting. All Finabel countries should prepare and train for such missions using best practice employed by other nations.

b) Main aspects

The main aspects of this study are :

- the development of training doctrine ;
- the training facilities in Finabel countries ;
- the exchange of resources ;
- the way training is conducted in the different countries ;
- the use of lessons learned ;
- the validation of training for military operations in urban terrain.

c) Main conclusions and recommendations

Main conclusions

- Most countries consider the Coy level as most appropriate to hold an FTX for MOUT. For higher levels CPX is thought to be more suitable.
- All Finabel countries have training facilities for MOUT, in some way or another.
- For some Finabel countries the training for MOUT is integrated in the mandatory training or scheduled in the annual training plan of the units. The majority of the Finabel countries also do specific MOUT training programmes to prepare for missions.
- There are a variety of ways that Finabel countries perform HQ Staff training, varying from no specific training, MAPEX via constructive trainer to simulation.

- Most Finabel countries have (in one way or another) opened their MOUT training centres for other Finabel countries, NATO-members and PfP-countries.
- There is a great need for more information sharing about tactical doctrine/procedures, training techniques and Lessons Learned in order to improve MOUT training.
- Main recommendations Finabel countries should consider the necessity for training combined arms combat in urban terrain.
- In order to optimise training methods and interoperability between Finabel countries, they could make better use of the knowledge and facilities of the member states.
- Consider the multinational development of simulation systems, exchange observers/trainers and instructors, facilitate close cooperation/interaction/information exchange at the level of instruction groups, create the possibility for a multinational demonstration of the use of equipment as used by Finabel countries in performing operations in urban areas and discuss national ROE related to urban terrain in order for them to be applied to training in urban areas.

1. INTRODUCTION

- 1.1. For the near future, we expect that the social trend of urbanisation will continue (or increase) and we will see the population concentrate in towns. One of the reasons for this phenomenon is the availability of services. Economic and political activities, as well as the important infrastructure, will be concentrated more and more in urban areas. In future conflicts and interventions, the decisive points and potential targets of the new threats, will most probably lie in urban areas. Asymmetric and irregular warfare will therefore increasingly take place in urban environments. It is paramount that a substantial part of future military operations will take place in the urban environment.
- 1.2. The special characteristics of military operations in urban terrain : the hazard of friendly fire, mainly operating in small teams, a mixture of combatants and non combatants, collateral effects, consequences of individual military behaviour etc., make urban terrain the most challenging environment for military operations. Also Peace Support Operations always involve military activities in urban terrain. Therefore, it is very important to train Finabel armies how to cope with the challenges of military operations in urban terrain (MOUT¹).
- 1.3. This study will focus on how the armies of Finabel member states train their soldiers and units, especially for this kind of operations. In study M.16.R we consider :
 - the development of training doctrine ;
 - the training facilities in Finabel countries ;
 - the exchange of resources ;
 - the way training is conducted in the different countries ;
 - the use of lessons learned and finally ;
 - the validation of training for military operations in urban terrain.

2. AIM

To study how Finabel countries can optimise training methods and interoperability for the preparation of soldiers and units to operate in urban terrain, across the full spectrum of conflict.

3. JUSTIFICATION

Modern military missions require the involvement of many nations to participate in operations in urban areas. Nowadays, military operations (and therefore also those in urban terrain) can change quickly from low intensity peacekeeping to high intensity war fighting. All Finabel countries should prepare and train for such missions using best practice employed by other nations.

¹ MOUT = Military Operations in Urban Terrain. Some nations refer to "MOUT" as "FIBUA" (Fighting In Built Up Areas) or "Urban Operations".

4. DESCRIPTION OF THE STUDY

4.1. Framework and limitations

Only in Finabel member states.

4.2. Type (A, C or R)

Study (R).

4.3. Brief Description

- Summary of national programmes and procedures about training in urban terrain.
- Description of training facilities and simulation systems in different nations.
- Summary of ongoing exchanges among the member states.
- Indication of which lessons learned from recent military operations in urban terrain are influencing our training methods.
- Points of contact in each nation for training of this type.
- Identification of a possible common training policy and further co-operation.
- Recommendations regarding ways to optimise training methods and interoperability.

4.4. There is an imminent relation between this study and several other (ongoing or to be updated) Finabel studies. These are :

- Finabel Study M.11.R

“Possible types of cooperation between Finabel countries in the field of instruction and training” (including the updated Complementary Annex)

- Finabel Study M.17.R

“Minimum training standards for Combat Support (CS)/Combat Service Support (CSS) personnel engaged in operations”

- Finabel Study M.18.R

“Taking into account the lessons of recent conflicts to introduce changes in instruction and training in Finabel countries” (reworking Finabel study M.6.R).

5. THE DEVELOPMENT OF TRAINING DOCTRINE

- 5.1. Some Finabel countries have developed a specific training doctrine for MOUT, placed on training manuals (see Annex 2). By some countries this is under development or in the approval phase. Other countries had not (yet) developed their own training doctrine, but base their training approach on (their or other countries') doctrine for operations. All countries use their own language. All the countries are willing to share the available doctrines or manuals with other Finabel members.
- 5.2. Developers of MOUT training visit units and exercises, study available (inter) national information, attend (inter) national conferences and working groups resulting in producing papers, manuals, videos, CD's and training plans. In two countries the process of production is a co-operation of all involved services. One country deduces the "what" to the "how", taking into account the lessons learned and the Army's capabilities to fulfil missions.
- 5.3. In most Finabel countries training for MOUT is structured within the regular training programme of the units, but not for all types of units. The majority of the Finabel countries also do specific MOUT training programmes to prepare for missions.
- 5.4. The training for MOUT in Finabel countries includes the following aspects :

	NL	UK	DE	PT	BE	IT	EL	FR	ES
Legal framework	+	+	+	+	+	+	+	+	+
Intelligence	+	+			+	+	+	+	+
Psyops					+	+	+	+	
CIMIC		+	+		+	+	+	+	
Media awareness	+	+	+		+	+	+	+	+
Intensity levelling									
Cultural awareness	±	+	+	+	+	+	+	+	+
	+	+	+		+	+	+	+	+

+ = yes, ± = depending on

- 5.5. In three countries new technologies (especially those related to Network Centric Warfare) influence MOUT training activities and have effect on TTP (tactics, techniques and procedures). One country is in the process of implementing changes. In the other Finabel countries it has not yet influenced training for operations in urban areas.

5.6. There is a wide variety in the way Finabel countries incorporate their MOUT training :

- During the training cycle at individual, squad, Plt, Coy and Bn level. Training as “combined arms” with tanks and engineers.
- Individual course for unit instructors. Collective training from Coy up to formation level.
- Basic skills and capabilities for urban operations are trained during pre-deployment training for individuals and teams up to section level. Plt, Coy and Bn training during a post-basic training. Overall operational training is connected with leadership training. All arms and services got a supplementary infantry training.
- No specific pattern. Due to the characteristics of training areas MOUT is conducted to Coy level.
- MOUT training in initial phase of formation for individual and squad drills. Plt and Coy is conducted in the units.
- Carried out progressively divided in basic and advanced training and before deployment in missions. Officers and NCOs attend specific courses.
- In the second cycle of training for the Infantry units and Special Forces.
- Combined arms collective training for the lower echelons (Plt) up to Coy level at the MOUT Training Centre. Exercises for basic units in combat villages take place regularly.
- In initial phase at Plt level.

6. TRAINING FACILITIES IN FINABEL COUNTRIES

6.1. In Finabel countries training facilities for MOUT vary from a few skill and drill houses up to villages which are suitable up to Coy or even Bn level. One country also has an urban complex for CBRN training.

6.2. Most Finabel countries use (mobile) simulation (programmes) for the training of MOUT (see Annex 2). This varies from light weapon effect simulators, through tactical engagement simulators, up to constructive trainers for Bn/Bde level. One country even up to the operational level.

- 6.3. Multinational and/or joint and/or combined arms training is possible in only some Finabel countries². Finabel countries should consider the necessity for training combined arms combat in urban terrain.
- 6.4. Most countries consider the Coy level (when conducted as combined arms) as most appropriate to hold an FTX for MOUT. For higher levels, CPX is thought to be more suitable. Two countries make use of simulation programmes. The main reason for limitation to Coy level is the quality of the available facilities for MOUT training, in terms of the size of facilities and capabilities that may be used.
- 6.5. The regular equipment like blanks, shot and blast simulators, exercise (flash-bang) hand grenades and equipment for personal safety (eye-, ear- and body-protection) - including equipment for riot control - is generally used in the Finabel armies. One country also uses special ammunition, similar to paintball shooting. See also Finabel Study M.18.R³.

7. CONDUCTING TRAINING

- 7.1. Five Finabel countries use instructors of the own units as well as specialist instructors from training schools. When training is carried out in specific MOUT Training Centres, specialists will execute the instruction. When training is carried out within the normal training cycle, MOUT training is a responsibility of the unit's own instructors.
In the other four countries, MOUT training is a responsibility of the unit's own instructors.
- 7.2. With the exception of three countries, the other Finabel countries use MAPEX for HQ Staff training. One country uses a constructive trainer. Other countries combine MAPEX with procedural planning and CPX. Two countries do not use specific HQ Staff training for MOUT.
- 7.3. Almost all Finabel countries execute courses for instructors MOUT and courses for commanders. Some countries also execute MOUT courses for Staff.

² For further details about possibilities and planning contact the POC's of the different countries (see Annex 2 and Finabel Study M.11.R Complementary (see pt. 4.4 from this paper)).

³ To be updated, see pt. 4.4 from this paper.

- 7.4. For some Finabel countries the training for MOUT is integrated in the mandatory training or scheduled in the annual training plan of the units. In other countries specific MOUT training is in the design phase. In the rest of the Finabel countries MOUT training is carried out for different levels. The duration of the training varies from 1 day up to 3 weeks.
- 7.5. Almost all armies from Finabel countries train their Combat Support units for operating out-of-role. Mainly to train them as Light role Infantry, meaning basic combat skills (“every soldier a rifleman”). Any further considerations about this subject will be made in Finabel Study M.17.R (see pt. 4.4 from this paper).

8. EXCHANGE OF RESOURCES

- 8.1. Four Finabel countries have opened their MOUT training centres to other Finabel countries, NATO-members and PfP-countries. Two countries provide specific (developed under UCATT-standards⁴) courses to be used in interoperability between facilities. One country provides specific courses for MOUT instructors and MOUT advisors, and also offers multinational training opportunities with domestic units. One country participates in NATO-courses, and an other is considering to open its MOUT training facilities for other Finabel countries. Also see Finabel Study M.11.R Complementary⁵.
- 8.2. To operate effectively together, requires to train together. In order to optimise training methods and interoperability between Finabel countries, they could make better use of the knowledge and facilities of the member states. Therefore it is recommended to :
- Enhance the possibilities for bi- or multilateral training. Necessary level to train is Coy level, except for specialists (due to EU BG (see unifying theme)), Coy is lowest level to integrate into a BG).
 - Define Coy capabilities as a standard in order to facilitate co-operation and integration.
 - To stimulate the use of each others resources (infrastructure as well as technological resources; e.g. simulation systems).
 - To exchange best practises and experiences in training for MOUT.
 - To exchange problems and their solutions in training for MOUT.

⁴ UCATT = Urban Combat Advanced Training Technology. UCATT is a NATO working group, established to define standards for training and simulation for MOUT.

⁵ To be updated, see pt. 4.4 from this paper.

8.3. Other methods to improve interoperability :

- Consider the multinational development of simulation systems⁶.
- Exchange observers / trainers and instructors.
- Facilitate close cooperation / interaction / information exchange at the level of instruction groups.
- Create the possibility for a multinational demonstration of the use of equipment as used by Finabel countries in performing operations in urban areas.
- Discuss national ROE related to urban terrain in order for them to be applied to training in urban areas

9. LESSONS LEARNED⁷

- 9.1. Lessons learned information is mainly gathered from experiences at MOUT training centres (AAR's), from the world wide operations network and from NATO members with experience in planning and executing military operations in urban terrain. Most armies have their own department for collecting lessons learned.
- 9.2. In most countries lessons noted are transferred to training centres or training departments to improve exercises and doctrine and in other Finabel countries a pragmatic approach is chosen to improve the training for MOUT in the units. Some countries depend totally on foreign information to improve their training activities for MOUT.
- 9.3. The duration of the implementation cycle of lessons learned strongly depends on the pressure and need coming from current operational engagement. In general, the implementation cycle takes at least one year. Under pressure, this can sometimes be brought back to months or even weeks. One example in this, can be the measures most countries are taking to counter the IED threat. Also see Finabel study M.18.R (see pt. 4.4 from this paper).
- 9.4. Looking at the kind of knowledge or data that Finabel countries would like to have to improve MOUT training, we see a great variety of (different) needs. These needs vary from detailed enemy pictures, characteristics of urban areas, kinds of threats, ROE and specific operations in urban terrains. There is also a great need for information from countries with combat experience in urban terrain. One of the countries does have a great need for training means, especially simulators.

⁶ UCATT is also involved in this.

⁷ Also see Annex 3 (UK Key lessons Learned).

In most Finabel countries the lessons learned gathered from military operations in urban terrain did increase the need for adequate individual equipment for personal safety and for combat capabilities. Although the title may differ, all countries do experiments with soldier modernisation programmes. Also a new reality for MOUT like “three block war”, did have great influence on how to deal with civilians, e.g. ways for riot control. In one country the list of wanted skills, procedures and equipment is very extensive.

Also see Finabel Study M.18.R (see pt. 4.4 from this paper).

10. VALIDATION OF TRAINING

Nations do not validate their MOUT training in terms of “ready/not ready”, implying “GO/NO GO” for operational engagement. Three countries have no validation/evaluation standards and means for this specific training. Some countries have a range of validation/evaluation standards and means for this specific training, from individual level up to Bn or Bde level, and from face-to-face evaluation/AAR up to simulation and/or instrumentation.

11. CONCLUSIONS

11.1. The development of training doctrine

- Some Finabel countries have developed a specific training doctrine for military operations in urban terrain. Other Finabel countries base their training approach on doctrine for operations.
- The process of doctrine production for this specific training is – as far as there is a training doctrine - based on visits of units and exercises, the study of available (inter) national information, and the attendance of (inter) national conferences and working groups resulting in producing papers, manuals, videos, CD’s and training plans.
- In three countries new technologies did influence training activities and have effect on TTP (tactics, techniques and procedures). In the other countries it did not as yet influence training for military operations in urban terrain.
- There is a great variety of aspects included in the training for military operations in urban terrain.
- In most Finabel countries training for MOUT is structured within the regular training programme of the units, but not for all types of units. The majority of the Finabel countries also do specific MOUT training programmes to prepare for missions.
- Most countries consider the Coy level as most appropriate to hold an FTX for MOUT. This is also due to practical limitations. For higher levels CPX is thought to be more suitable.

11.2. The training facilities in Finabel countries

- All Finabel countries have training facilities for MOUT, in some way or another.
- Most Finabel countries use some kind of (mobile) simulation (programme) for training military operations in urban terrain.
- In some Finabel countries there is the possibility for multinational and/or joint and/or combined arms training.
- In training for MOUT the regular equipment like blanks, shot and blast simulators, exercise (flash-bang) hand grenades and equipment for personal safety – including equipment for riot control - is generally used in most Finabel armies.

11.3. The way training is conducted in the different countries

- For some Finabel countries the training for MOUT is integrated in the mandatory training or scheduled in the annual training plan of the units. In other countries specific MOUT training is in the design phase. In the rest of the Finabel countries MOUT training is carried out for different levels. The duration of the training varies from 1 day up to 4 weeks. The majority of the Finabel countries also do specific MOUT training programmes to prepare for missions.
- Almost all armies from Finabel countries train their Combat Support units for operating out-of-role (mainly as light role infantry).
- In conducting training for military operations in urban terrain most Finabel countries use instructors of the own unit and/or specialists from training schools, depending on the place and/or phase of training (as well as the availability of personnel). In four countries only specialist from schools are conducting this specific training.
- Almost all Finabel countries execute courses for instructors MOUT and courses for commanders. Some countries also conduct MOUT courses for Staff.
- There are a variety of ways that Finabel countries perform HQ Staff training, varying from no specific training, MAPEX via constructive trainer to simulation.

11.4. The exchange of resources

- To operate effectively together, requires to train together.
- Most Finabel countries have (in one way or another) opened their MOUT training centres for other Finabel countries, NATO-members and PfP-countries.

11.5. The use of lessons learned

- Lessons learned information is mainly gathered from experiences at MOUT training centres (AAR's), from the world wide urban operations network and from NATO members with combat experience in urban areas. Most armies have their own department for collecting lessons learned.
- In most countries lessons noted are transferred to training centres or training departments to improve exercises and doctrine and in other Finabel countries a pragmatic approach is chosen to improve the training for MOUT in the units. Some countries depend totally on foreign information to improve their training activities for MOUT.
- The implementation cycle for lessons learned can vary, according to operational pressure and need.
- There is a great need for more information sharing about tactical doctrine/procedures, training techniques and Lessons Learned in order to improve MOUT training.
- In most Finabel countries the lessons learned gathered from military operations in urban terrains did increase the need for adequate individual equipment for personal safety, for combat capabilities and for riot control.

11.6. The validation of training for military operations in urban terrain

Some Finabel countries have no validation/evaluation standards and means for this specific training. Some countries have a range of validation/evaluation standards and means for this specific training, from individual level up to Bn or Bde level, and from face-to-face evaluation/AAR up to simulation and/or instrumentation.

12. RECOMMENDATIONS

- 12.1. Finabel countries should consider the necessity for training combined arms combat in urban terrain.
- 12.2. To operate effectively together, requires to train together. In order to optimise training methods and interoperability between Finabel countries, they could make better use of the knowledge and facilities of the member states. Therefore it is recommended to :
 - Enhance the possibilities for bi- or multinational training. Necessary level to train is Coy level, except for specialists.
 - Define Coy capabilities as a standard in order to facilitate co-operation and integration.
 - To stimulate the use of each others resources (infrastructure as well as technological resources; e.g. simulation systems).

- To exchange best practises and experiences in training for MOUT.
- To exchange problems and their solutions in training for MOUT.

12.3. Other methods to improve interoperability :

- Consider the multinational development of simulation systems.
- Exchange observers / trainers and instructors.
- Facilitate close cooperation / interaction / information exchange at the level of instruction groups.
- Create the possibility for a multinational demonstration of the use of equipment as used by Finabel countries in performing operations in urban areas.
- Discuss national ROE related to urban terrain in order for them to be applied to training in urban areas.

12.4. To take into account the imminent relation between this study and several other (ongoing or to be updated) Finabel studies. These are :

- Finabel Study M.11.R

“Possible types of cooperation between Finabel countries in the field of instruction and training” (including the updated Complementary Annex)

- Finabel Study M.17.R

“Minimum training standards for Combat Support (CS)/Combat Service Support (CSS) personnel engaged in operations”

- Finabel Study M.18.R

“Taking into account the lessons of recent conflicts to introduce changes in instruction and training in Finabel countries” (reworking Finabel study M.6.R).

ANNEX 1

QUESTIONNAIRE

SECTION I

1. THE DEVELOPMENT OF TRAINING DOCTRINE

- 1.1. What is/are your national point(s) of contact (POC) or national information desk for military operations in urban terrain (MOUT) ? (department, address, telephone number, e-mail address)
- 1.2. What specific training doctrine has been or will be developed for military operations in urban terrain? What kinds of field manuals or other papers have been produced about it? Are they written in English ? Will it be possible to share the available doctrine with other Finabel members ?
- 1.3. How is the process of doctrine production for this specific training conducted ?
- 1.4. How did new technologies (especially Network Centric Warfare (NCW)) change training for military operations in urban terrain ?
- 1.5. In which phase of the training process is MOUT training conducted (initial, specialist, collective, etc.) ?
- 1.6. At what level/echelon do you consider it appropriate to train MOUT in a Field Training Exercise (FTX) role? Why ?
- 1.7. Which simulation programmes are used for training for military operations in urban terrain? What type of simulation (real, virtual or constructive) is used to train the several levels/echelons.
- 1.8. How is training for military operations in urban terrain structured in the training programme for units ? (e.g. a part of the regular unit training programme aimed on Peace Enforcement (PE) and large-scale conflicts or especially aimed on training for specific missions throughout the entire spectrum of conflict ?)
- 1.9. Does training for MOUT in your country include the following aspects :
 - The legal framework (ROE, freedom of action at all levels, etc.) for operations
 - Command and Control at tactical level
 - Intelligence (in particular HUMINT)
 - PSYOPS
 - CIMIC
 - Media awareness and media operations

- The deliberate increase and decrease in the intensity of operations
- Cultural awareness

SECTION II

1. TRAINING FACILITIES IN FINABEL COUNTRIES

- 1.1. What national training facilities are used for training for military operations in urban terrain ?
How are these training facilities built up? (area, kind of buildings, target groups for training, instrumentation, etc.). At what level/echelon can you train units in your training facilities ?
- 1.2. Does your country envisage multinational/joint/combined arms training for its forces in these training facilities ? (for example, working with Army Aviation) If yes, give further details about it.
- 1.3. Explain the methods for HQ Staff training for MOUT Operations. Does this include map exercises (MAPEX) ?
- 1.4. What kind of equipment, weaponry, and munitions do you use in training for MOUT?

SECTION III

1. EXCHANGE OF RESOURCES

- 1.1. What exchange programmes regarding MOUT training with other member states of Finabel exist nowadays or could be shared ? What plans are or will be developed to increase the exchange of training facilities or training programmes with other member states of Finabel ? If so, with what Finabel countries ?

SECTION IV

1. CONDUCTING TRAINING

- 1.1. Is training for MOUT conducted by instructors of the own unit or by specialists from training schools ?
- 1.2. List the courses for leaders or instructors in MOUT.
- 1.3. How is training for MOUT structured (what levels, objectives, topics and timeframe)?
- 1.4. Are CS units trained for MOUT when they operate out-of-role ?

SECTION V

1. LESSONS LEARNED

- 1.1. What structure do you have for collecting and disseminating lessons learned and how does it work ?
- 1.2. How are lessons learned taken into account to improve training for military operations in urban terrain (doctrine, organisation, training, new threats, etc.) ?
- 1.3. What kind of knowledge/data do you think would improve MOUT training ?
- 1.4. According to the lessons learned, what new skills, procedures and equipment are required for MOUT training for the different echelons/ranks (e.g. crowd control, etc.) ?

SECTION VI

1. VALIDATION OF TRAINING

- 1.1. What validation/evaluation standards and means (simulation systems, dedicated training areas, etc.) are used for MOUT training ?

ANNEX 2

DEVELOPMENT OF TRAINING DOCTRINE

	NL	UK	DE	PT	BE
<u>POC</u>	Land Forces Manoeuvr Training Centre (OTCMan) Combat Training School (GTS) Urban Operations Training Wing (IGOVG) Amersfoort NL 0031-334661208 IGOVG.GTS@RNLA.MIN DEF.NL	OC-Urban Operations Wing The Land Warfare Centre Warminster Wiltshire UK 0044-1980674752	Armour School combat Development Division, S 3 Munster 05192/12-4315 Infantry School, Combat Development Division, S 3 Hammelburg 09732/784-2321 Heeresamt, Konzeptionelle WE im Themengebiet UrbOp Köln 0221/9371-3162	Escola Prática de Infantaria 2640 Mafra Portugal	
<u>Specific doctrine</u>	Paper on 'Operations in built-up areas' (English) Manuals on the tactical level for individual level up to Bn (in Dutch). Course directives and lesson plans	Army Field Manual Volume 2 Part 5: Operations in Specific Environments – Urban Operations Pamphlets on Lesson Plans and Battle Exercise (in English).	Study on 'Operations of Mechanised Forces in Urban Terrain'. 'Training for operations in an urban environment' (in concept). Doctrine for 'Operations in Conurbations'. 'Threat by and Fight against Irregular Forces'. (All in German)	Manuals based on American and British doctrine up to Bn level. All in Portuguese language.	Doctrine is still in development.
Conducting process of production of doctrine for training	Co-operation of all involved services (Marines and Army), visiting units and exercises, studying available information in working groups. Producing papers.		Co-operation between Army, Navy, Air Force as well as the Joint Support Service and the Bundeswehr Joint Medical Service, visiting units and training centres and studying documents and videos from recent battles and lessons learned from own and foreign experiences.		

Influence of new technologies (NCW) and EBO	Influence of technology (NCW and other) on training at TTP level (clothing, equipment, weapons and ammunition)	Continuing review of tactics, techniques and procedures.	DE is working on a CD&E project, called "Urban Operations 2010". Results will be available in 2007.	Is still in discussion.	
Conduction of MOUT training	During the training cycle at individual, squad, Plt, Coy and Bn level. Training as 'combined arms' with tanks and engineers.	Individual course for unit instructors. Collective training from Coy up to formation level. UK conduct MAP EX trg at Sect, Plt, Coy and Bn level. We conduct these on the FIBUA course and by units as they go through the trg cycle of on the URBAT (a simulation that allows Plt to Coy level to plan and execute MOUT on a computer database).	Basic skills and capabilities for urban operations are trained during pre-deployment training for individuals and teams up to section level. Plt, Coy and Bn training during a post-basic training. Overall operational training is connected with leadership training. All arms and services got a supplementary infantry training.	No specific pattern. Due to the characteristics of training areas MOUT is conducted to Coy level.	MOUT training in initial phase of formation for individual and squad drills. Plt and Coy is conducted in the units.

FTX for MOUT	Up to Coy level. In NL there are no suitable sites for MOUT training on formation level.	Up to Coy level. Bn and Bde level are trained in the URBAT-2 simulator.	FTX up to Bn level. Bde level and higher are trained by CAT.	FTX up to Coy level. Higher echelons can really interact depending on sub-units.	FTX up to Coy level.
<u>Simulation programmes</u>	Constructive trainer KIBOWI for Bn/Bde Staff. (CaSToR of 2007) Tactical Indoor Simulator (TACTIS) partly useful for training MOUT up to level IV (Coy)	TES (Tactical Engagement Simulator): a real laser based system similar to US Miles; URBAT-2 (Urban Battle Group Trainer): virtual simulator for testing tactics; LLUST (Low Level Urban Skills Trainer): a computer based instrumentation of the interior and exterior of buildings for individual and squad training.	AGDUS (Tactical engagement simulator) for exercises up to Bn level; SIRA for CPX (Bn and Bde level); GUPPIS assisting mapex for staffs and Bde level; KORA and SiMoF for exercises at operational levels of command; Additional systems like AGPT and AGPG.	SITPUL (Laser based system to generate hits and award casualties similar to US MILES)	MINIDRA: Light weapon effect simulator similar to US MILES
Structured in training programmes	Fully structured within the training of units. Exercises for combat operations high in the range of force against an asymmetric enemy in urban terrain as a preparation for coming missions.	Structured at BG level during a unit training cycle for infantry units.	Armoured combat and reconnaissance forces are trained for high-intensity operations, including urban operations. For low-intensity operations units are trained in mission-oriented training.	Especially aimed at training for specific missions throughout the entire force spectrum.	Training for MOUT is a part of the regular training program. Units are more specific trained in case of missions.
Aspects of MOUT	Legal framework: Yes HUMINT: Yes PSYOPS: No CIMIC: No Media: Yes Intensity level: Depending on Cultural awareness: Yes	Legal framework: Yes HUMINT: Yes PSYOPS: No CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes	Legal framework: Yes HUMINT: No PSYOPS: No CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes	Legal framework: Yes HUMINT: No PSYOPS: No CIMIC: No Media: No Intensity level: Yes Cultural awareness: No	Legal framework: Yes HUMINT: Yes PSYOPS: Yes CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes

TRAINING FACILITIES					
	NL	UK	DE	PT	BE
Facilities for training MOUT	<p><u>At barracks:</u> skill and drill houses (7 objects), for training individual behaviour. Exercises last for one week to obtain skills and drills.</p> <p><u>Oostdorp:</u> Two stores simple houses (34) for training dismounted infantry squads. Also sewer system, trenches and different types of demonstration houses available.</p> <p><u>Marnehuizen:</u> Use of duel simulators (MCTC). Test with instrumentation running. Urban area with three kinds of urban terrain (120 objects) and sewer system for training up to Coy level and combined arms operations.</p>	<p><u>Copehill Down Village:</u> Houses (90) and shanty town buildings (100), molotov cocktail range, railways etc. for BG combined arms level.</p> <p>Instrumentation with LLUST,URBAT-2, CCTV, sound system;</p> <p><u>Ceileni Village:</u> Buildings (31) for Coy level;</p> <p><u>Whinney Hill:</u> Buildings (40) for Coy level;</p> <p><u>Eastmere Village:</u> Buildings (23), no armour for Coy level;</p> <p><u>Longmoor:</u> Buildings (24 for FIBUA and 38 for COIN) for Coy level;</p> <p><u>Imber Village:</u> Buildings (33) for BG and Coy level;</p> <p><u>Cearwent:</u> Buildings (300 objects industrial complex) for Coy level.</p>	<p><u>At barracks:</u> Basic skills and capacities.</p> <p><u>Major training areas:</u> Different types and numbers of houses for team training and dismounted infantry up to Coy level;</p> <p><u>Bonnland and Lehnin:</u> Special areas for instructor training;</p> <p><u>Lehnin:</u> Training area up to Bn level under construction. Special estimate on different kinds of urban surroundings.</p> <p><u>Wildflecken:</u> Special areas for instructor training and dismounted infantry up to Coy level without any tanks</p> <p><u>Altmark and Altengrabow:</u> Compound training for Coy up to Bn level with different types and sizes of houses.</p> <p><u>Munster – North:</u> Special areas for instructor training and the training on platoon, reinforced platoon and coy level</p>	<p><u>Infantry School Mafra:</u> concrete and brick buildings (8), including 1 shooting house, a confidence course and an underground course.</p> <p><u>San Jacinto, Aveiro:</u> Buildings made of concrete and bricks (16) including 1 shooting house and a confidence course.</p>	<p><u>Asperulange at Arlon:</u> Single and two floor buildings (30) for Coy training.</p>

Possibility multinational/joint and combined arms training	Combined arms training up to Coy level. Possibilities for CAS, CCA by attack helicopters. Possibilities for multinational training after consulting POC.	At (multinational) exercises, air and aviation are included, also combined arms training.	Joint and combined military operations, possibilities up to Bn level.	No possibilities	None
Methods for HQ Staff training on MOUT	Courses and MAPEX. Emphasis on constructive training with KIBOWI. (CaSToR of 2007)	Training achieved through MAPEX, procedural planning and CPX, tested on URBAT-2.	Regular MAPEX to train staff and leadership by using GUPPIS and/or SIRA.	MAPEX supported by terrain models	MAPEX
Equipment, weaponry and munitions used	For small calibre weapons blanks and simmunition (soap balls), smoke hand grenades and non-lethal flash-bang hand grenades; For the bigger calibres: shot and blast simulators; Equipment for personal safety. Marnehuizen duel simulators (MCTC). Momentarily testing for the instrumentation of the interior of some objects	Standard issue assault packs, normal battle simulators, individuals issued with standard eye and ear protection.	Blanks for all standard weapons, smoke hand grenades and non-lethal flash-bang grenades; Individuals issued with eye-, ear- and body protection.	Special equipment at squad level (squad kit for urban combat)	Blanc ammunition and light weapons effect simulator similar to US MILES.

EXCHANGE OF RESOURCES					
	NL	UK	DE	PT	BE
Exchange programmes	Courses (Train the trainer) for NATO members and PfP countries; Under UCATT standards developed for interoperability between facilities.	Multinational training opportunities with British units at Copehill Down Urban Instructors Course Urban Advisors Course	Courses for NATO members and PfP countries; Under UCATT standards developed for interoperability between facilities.	None	None

CONDUCTING TRAINING					
	NL	UK	DE	PT	BE
MOUT instruction	Individual training at the barracks is conducted by own unit instructors; Specialists of the Urban Training Wing conduct training up to Coy level.	Both, by the own instructors of the unit and by the specialists (13) from the Urban Training Wing.	Special courses for instructors; Individual training by the unit's own instructors.	Both: instructors from the own unit and specialists on training schools.	MOUT training is conducted by instructors of the own unit
List of courses for leaders or instructors	FIBUA MOUT Instructors Course (2 x per year); Courses for commanders.	Unit Instructors (Sgt – Maj) attend 14 day Urban Warfare Course for Instructors. Unit operations staff (Sgt – Maj) attend 7 day Urban Operations Course for Officers. Crew and Troop/Platoon Comds of Recce, Armd Inf and Armd Units receive specific MOUT training (See table below).	At the Infantry School leaders are trained in principals of MOUT; Training courses offered by the combat training centres for commanders of Bn, Coy and Plt.	Basic Fibua Course for young officers and NCO's Advanced Fibua Course for captains, majors and Bn staff.	Course for instructors
Structure of MOUT training	Individual level 2 d Squad level 5 d Platoon level 5 d Coy level 5 d Not including so called refreshment and mission-related MOUT exercises.	Team training 0,5 d Sub-units 1 d Unit/formation 2 d	A new training cycle will be developed. At this moment training for MOUT is integrated in the mandatory training and assignment cycle except for basic skills.	Depending on unit's training program.	For sq and Plt leaders: 2 weeks For C-Coy: one week For OpsOffr Bn: one week
Training for CS units, operating out of the role	Yes, but also CSS units.	Yes	All other arms and services are trained in how to survive in urban environment in a light infantry setting.	Yes	Yes

LESSONS LEARNED					
	NL	UK	DE	PT	BE
Collecting and disseminating LL	<p>Main facility Marnehuizen might in the future be instrumented to collect information about training for MOUT. Realisation depends on the results of current tests and experiments.</p> <p>Another important source of information is the 'world wide urban operations network'.</p> <p>A combination of Post Operational Reports is collected by the Urban Ops (MOUT) Training Wing and transferred into pamphlets, doctrine and training.</p>	<p>Information gained by Post operational reports and AARs is collected by doctrine and training staff and transferred in LL to training wings.</p>	<p>LL from missions of allied and friendly nations and from own military operations are analysed and integrated into the training process. This is also for information gained through training courses and exercises.</p>	<p>None, only in Infantry School.</p> <p>Disseminating LL to other units.</p> <p>Units have own schemes to take them in account.</p>	
Improvement	<p>Collected information (lessons noted) will be transformed to lessons learned within the Urban Ops (MOUT) Training Wing. Results in improvements of current training exercises and courses.</p>	<p>LL are examined to draw training points. Result in improvement of current training exercises and courses (see annex 3).</p>	<p>Only if a general tendency becomes apparent lessons noted are used to improve the doctrine. Another important source of information is the 'world wide operations network'</p>		

Appropriate knowledge or data	<p>For example:</p> <ul style="list-style-type: none"> • Experiences and expertise from other countries and own missions (up to Bde level) • Statistics for the planning and about the use of goods (Class I to V). Also taking into account the use of these goods for other than own troops (e.g. humanitarian support) • Data for simscenario's 	A detail enemy picture in order to fully prepare units before deployment.	Experiences and expertise from other countries and own missions.	Characteristics of urban areas, kind of threats and ROE.	About new kinds of ops e.g. 'stabilisation and support ops' (SASO).
New skills, procedures and equipment as a result of LL	Crowd control as a result of 'three block war'; Improvement in personal equipment: the Soldiers Modernisation Programme.	A progressive development to improve skills and equipment to meet changing requirements.	The concept of Urban Operations Training	Unknown	Skills, procedures and equipment related to SASO.

VALIDATION OF TRAINING					
	NL	UK	DE	PT	BE
Validation/evaluation standards and means	<p>Individual level: none.</p> <p>Squad level: simmunition and video registration in Oostdorp.</p> <p>Pt and Coy level: duelsimulators (MCTC) and AAR-performance of exercising troops.</p> <p>Bn/Bde level: constructive trainer KIBOWI (CaStoR in the future).</p>	<p>URBAT-2 simulation;</p> <p>AAR-performance of exercising troops;</p> <p>Evaluation instruments to measure effectiveness of training;</p> <p>Comments from OPFOR;</p> <p>Comments from units returned from operations.</p>	<p>Individual level: none;</p> <p>Section level: evaluation by specialists;</p> <p>Plt an Coy level: tactical engagement simulators (AGDUS BT46) and instrumentation at the training facilities;</p> <p>Bn level: AGDUS BT46, instrumentation and SIRA;</p> <p>Bde level: SIRA, GUPPIS in conjunction with KORA and SiMoF.</p>	<p>None external evaluation, only internal validation and evaluation.</p>	

DEVELOPMENT OF TRAINING DOCTRINE					
	IT	EL	FR	ES	
<u>POC</u>	No specific POC. Info at Army General Staff, Force Employment Division Doctrine, Lessons Learned Branch. Via Venti Settembre, 127/A 00187 ROME Italy	HAGS/Directory of Infantry Athens 0030 2106552812	EMAT BPO, 14 Rue Saint Dominique Paris (01.42196195); MOUT Training Center Camp de Sissonne, Cenzub 02 151 Sissonne Cedex (03.23.25.43.49).	Dirección de Doctrina Acuartelamiento de la Merced Acera de San Ildefonso 18071 Granada	
<u>Specific doctrine for MOUT trainin</u>	MOUT, 2001-1e release; SOP Combat in urban area: - SOP FM03L (Light forces) - SOP FM03M (Middle forces) - SOP FM03C (Armoured forces) All in Italian language.	No specific doctrine for MOUT training. Field manual 121-1A (Operations in Urban Areas) in Greek language.	Concept approved. Field manuals for all branches all in French language, except concept manual written in English. Available for Finabel members.	Field manuals for small units all in Spanish language. Available for FINABEL members.	
Conducting process of production of doctrine for training			The 'what' is deduced to the 'how', taking in account the LL and the Army's capabilities to fulfil missions.		
Influence of new technologies (NCW) and EBO	So far, no influence. Studies about these aspects are part of 'the future soldier' project.		Influence of technology on trg at TTP level (clothing, equipment, weapons and ammunition).	Not yet applied.	
Conduction of MOUT training	Carried out progressively divided in basic and advanced training and before deployment in missions. Of and NCOs attend specific courses.	In the second cycle of training for the Infantry units and Special Forces.	By the end of 2006 combined arms collective training for the lower echelons (Plt) and up to Coy level at the MOUT Training Centre. Exercises for basic units in combat villages take place regularly	In initial phase at Plt level	

<u>FTX for MOUT</u>	From platoon up to Coy level as previewed from the Italian doctrine.	Up to Coy level and emphasised on small echelons.	Up to combined arms Coy level. First CPX than FTX with different kind of actions.	Up to Coy level. In consideration phase of developing a CPX for the higher levels.	
<u>Simulation programmes</u>	Live simulation systems with mobile CTC, MILES and TTS simulators. For unit and staff exercises with virtual scenarios.	No simulation programmes.	Constructive simulation (JANUS, SCIPIO with urban background); Autonomous instrumentation from the smallest echelons up to combined arms task force; Virtual simulation for collective branch training. STCAL: weapon effect simulator similar to US MILES.	A virtual shooting simulation and experimentally a constructive simulation (ACINF-Toledo). Ongoing efforts to create MOUT scenarios in the constructive simulators for staff training.	
<u>Structured in training programmes</u>	Mainly during unit training up to Coy level.	Part of the Infantry units training.	Considering a programme for the operational training of the combined arms brigades for MOUT.	Training for MOUT according to annual plan.	
<u>Aspects of MOUT</u>	Legal framework: Yes HUMINT: Yes PSYOPS: Yes CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes	Legal framework: Yes HUMINT: Yes PSYOPS: Yes CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes	Legal framework: Yes HUMINT: Yes PSYOPS: Yes CIMIC: Yes Media: Yes Intensity level: Yes Cultural awareness: Yes	Legal framework: Yes HUMINT: Yes PSYOPS: No CIMIC: No Media: Yes Intensity level: Yes Cultural awareness: Yes	

TRAINING FACILITIES					
	IT	EL	FR	ES	
Facilities for training MOUT	<p><u>Tuscany</u>: Lustrissimi and Villafranca, different subareas with various built-up structures.</p> <p><u>Trentino</u>: San Giorgio-Brunico, buildings with different levels.</p> <p><u>Rieti</u>: Complex urban area for NBCR training.</p> <p><u>Cesano</u>: Infantry School, with various built up structures</p>	<p><u>Kilkis</u>: 8 new buildings for Coy level, wooden buildings with 4 rooms, so called 'Killing houses'.</p>	<p><u>MOUT Training Centre CENZUB</u> for Coy level and later on the combined arms task force level.</p> <p><u>Building (64)</u>, shanty town Buildings (40), contained street, MASTTAC (a street with houses without roof for tactical and technical trg up to Plt level);</p> <p><u>Caylus</u>: building (30) for platoon level with field airport;</p> <p><u>La Courtine</u>: building (123) for Coy level;</p> <p><u>Mourmelon</u>: building (40) for Coy level;</p> <p><u>Coëtquidan</u>: building (30) for Plt level;</p> <p><u>Valdahon</u>: building (30) for Plt level;</p> <p><u>Garrigues</u>: specific urban platform for Plt trg;</p> <p><u>Bitche</u>: OTTERBIEL Maginot Fort for MOUT trg.</p>	<p>Seven small MOUT training facilities equipped according to the Instruction manual M14-001 parameters.</p>	
Possibilities multinational/joint and combined arms training	Not at the moment.	Not available yet	Yes, at CENZUB for combined arms training and for joint and multinational training once a year.	No	

Methods for HQ Staff training on MOUT	No specific HQ Staff training for MOUT operations.	MAPEX and exercises on sand table.	Based on MAPEX and with the use of the simulation tool SCIPIO.	MAPEX at Bde and Bn level. Ongoing efforts to create MOUT scenarios in the constructive simulators.	
Equipment, weaponry and munitions used	Usual equipment with blanks, and equipment for riot control.	Blank ammunition, exercise hand grenades and body armour vest when real ammunition is used.	The regular equipment; exercise ammunition; Real ammunition at specific firing range.	Regular soldier's equipment.	

EXCHANGE OF RESOURCES					
	IT	EL	FR	ES	
Exchange programmes	At the moment there are no specific exchange programmes. Italian personnel participate in NATO courses (UK, DE).	Occasionally.	In consideration.	Some Of and NCO's participate in FIBUA courses in the UK.	

CONDUCTING TRAINING					
	IT	EL	FR	ES	
MOUT instruction	Normally by instructors of the own unit.	Normally by own instructors; when preparing for PSO specialist instructors are used.	Training at the CENZUB by specialists of the Centre; Elsewhere by instructors of the unit.	By unit instructors that have attended any MOUT course.	
List of courses for leaders or instructors	FIBUA course (UK) and CQB course (DE).			Course at the Infantry School in Toledo	
Structure of MOUT training	Objectives fixed by the Land Operational Force Commander (LOFC), described in SOP's.	Part of unit training for 3 days up to Coy level. For Special Forces 4-10 days.	Is currently being designed and tested. Two weeks for Plt level and two weeks for Coy level in MOUT trg centre.	In process	
Training for CS units, operating out of the role	Yes.	Yes.		Foreseen.	

LESSONS LEARNED					
	IT	EL	FR	ES	
Collecting and disseminating LL	Info at Army General Staff, Force Employment Division Doctrine, Lessons Learned Branch. Via Venti Settembre, 127/A 00187 ROME Italy	Info at Hellenic General Staff, Doctrine Department.	Information gained by Post operational reports and AARs is collected to DREX (LL Department).	Normal structure for all LL in MADOC: a Knowledge Management Programme (KMP).	
Improvement	A pragmatic approach. Feedback from missions to regiments/brigades for training for same kind of missions.	Experiences from other countries are taken in account for national training for MOUT.	LL are examined to draw trg points. Result in improvement of current trg exercises and courses.	LL are integrated in the KMP.	
Appropriate knowledge or data	Experiences from other armies.	Suitable training facilities and means.		LL by armies with combat experience like USA, UK and Israel.	

<p>New skills, procedures and equipment as a result of LL</p>	<p>From the 'Future Soldier' project new skills and procedures are to be developed.</p>			<p><u>Skills</u>: All units at least basic course in MOUT; Strengthening leadership, initiative and psychological training. <u>Procedures</u>: Introduction of new concept; Large employment of INFO OPS; Employment of armoured units in MOUT; Integration of helicopters in operations. <u>Equipments</u>: Specific training facilities (Simulators; UAV's; Weapons for close combat; Weapons with larger shoot angle; Specific ammunition; Employment of non-lethal weapons; IFF-equipment; Vehicle-infantry communications system).</p>	
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VALIDATION OF TRAINING					
	IT	EL	FR	ES	
Validation/evaluation standards and means	Checklist of verifications inserted in the SOPs.	No validation standards.		The SIAE evaluation system	

UK trg List of courses for leaders or instructors.

Ser	Course	Content	Attendance
(a)	(b)	(c)	(d)
1	Junior Officers Tactics Course	Lecture on urban operations and effect on the planning process.	All captains.
2	Combined Arms Tactics Course	Lecture, TEWT, MAPEX and practical exercise.	Battlegroup sub-unit (company, squadron and battery) commanders and key G2/G3 staff at captain/major level.
3	Formation Recce Course	½ day lecture plus practical exercise in Copehill Down	LCpl-Cpl Crew Comds 2Lt/Lt Tp Comds
4	Close Recce Course	½ day lecture plus practical exercise in Copehill Down	Pl Comds, Pl 2ICs and Crew Comds
5	Armoured Infantry Tactics Course	½ day lecture plus TEWT but no practical exercise.	AI Pl Comds & Crew Comds
6	Armoured Troop Leader & Crew Commanders Course	½ day lecture, TEWT and practical exercise.	Armd Tp Comds & Crew Comds

ANNEX 3

UK MOUT Key Lessons Learned from Operations

Ser	Location/ Theatre	Lesson Identified	Lesson Learned
1	Iraq/Afghanistan	<p><u>The Inevitability of Urban Operations.</u></p> <p>Urban operations have now been recognised as an inevitable part of military activity. There will be fighting in urban areas, as this is where most of the ‘hearts and minds’ actually live. Whilst enemy military forces may be defeated, it is only following the fall of major urban centres that regimes can be said to have been defeated.</p>	<ul style="list-style-type: none"> - Preparation for urban operations must run throughout our training. - Training and operational resources must reflect the recognition of requirement to operate in the urban environment.
2	Iraq	<p><u>Utility of Armour</u></p> <p>Numerous lessons have been identified on the utility of armour within urban operations, in particular :</p> <ul style="list-style-type: none"> - The protection offered by armour. - Use of armour to gain entry to buildings and compounds. - The effect of armour on morale (both friendly and enemy). 	<ul style="list-style-type: none"> - Doctrine Note ‘Use of MBT in Urban Operations’ published.
3	Iraq	<p><u>Armoured Infantry Fighting Vehicles</u></p> <p>Again numerous lessons have been identified on the use of WARRIOR in urban operations, in particular :</p> <ul style="list-style-type: none"> - The effect of bar-armour on vehicle handling. - The dangers posed by coordinated attacks against AFV’s: IED/mine attack and then ambush. - The use of WARRIOR in Public Order situations. 	<ul style="list-style-type: none"> - Doctrine Note ‘Use of Warrior in COIN Operations’ published (Jul 05).

4	Iraq	<p><u>Combined Arms Training</u></p> <p>All Arms and Services need to be capable of operating (and fighting) within the urban environment and must, therefore, train for this eventuality. For example, the use of the hard surface clearing device on the Armoured Vehicle Royal Engineers (AVRE), and in future the TROJAN, are integral to urban operations but seldom practised. Engineers rarely train with the infantry in the urban environment where their ability to gain access to buildings and knowledge of Force Protection must to be incorporated.</p>	<ul style="list-style-type: none"> - Field Army Training Branch is reviewing urban operations training. - The BATUS (in Canada) urban training facility was operational in Oct 06 to enable all Armoured Infantry and Armoured Regiments to conduct urban training with their vehicles. - Further incorporation of the contemporary operating environment (COE) into Adaptive Foundation training will go some way to addressing urban training.
5	Afghanistan	<p><u>Air/Land Integration</u></p> <p>The use of air and aviation on operations has been recognised for the delivery of ISTAR products and CAS. Related lessons include :</p> <ul style="list-style-type: none"> - The requirement for precise, accurate mapping. - The need for Liaison Officers to support CAS missions. - A better understanding of the effects of air and land delivered weapons is necessary. - The proximity of the urban fight places a premium on precision guided munitions. 	<ul style="list-style-type: none"> - Doctrine Note 'Close Air Support' published (Jan 06). - Doctrine Note 'Close Combat Support' published (Mar 06).

UK MOUT Key Lessons Learned from Training

Ser	Lesson Identified	Lesson Learned
1	<p><u>TTPs and Live Firing</u></p> <p>The feedback from all units to date has been that our TTPs are good and that they need only be adjusted to the AO into which units are deployed. Units agree that our trg is good but lacks a live fire capability.</p>	- Introduction of live firing capability being researched
2	<p><u>Urban Ops Training Start Standards</u></p> <p>The level of urban ops training prior to arrival on TESEX is generally very poor and units then receive a 24 hour training package prior to conducting urban ops. The lack of even a basic standard of UO skills ensures that the lessons learnt during TESEX are rapidly forgotten.</p>	- Units should arrive as a minimum standard able to conduct section level ops in all types of urban terrain prior to TESEX. This must be resourced for units in a training year.
3	<p><u>Copehill Down Village (CDV)</u></p> <p>The urban terrain in CDV is generally 'open terrain', reflecting the typical West German village upon which CDV was modelled, rather than the close urban conurbations found on operations.</p>	- The introduction of an ISO container village has introduced a more realistic close terrain environment and added new skills to fight in this type of terrain. The close terrain is more reflective of most urban conurbations.
4	<p><u>ROE within the FIBUA Environment</u></p> <p>Soldiers have found it difficult to understand that ROE on operations other than warfighting greatly restrict any form of house clearance drills that they conduct. Examples have been seen of soldiers throwing grenades into rooms, without considering the occupants.</p>	- Soldiers are now taught that room clearance drills must be dry until a target is identified that meets the ROE.