Wargame Rules for London Firefighting 1940 - 41



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BLIZ

Introduction

This is a low level operational game about firefighting during the London Blitz in 1940/41. The basic premise is that the player(s) represent fire officers trying to combat fires and deal with emergencies in the critical period of the first London Blitz of September 1940 to May1941. It is a 'tactical skirmish' game – with individual models representing individual vehicles, and stands of figures representing small groups of fire-fighters and emergency workers.



It also requires a model (or at least a detailed ground plan) of the appropriate scale or the buildings involved. To keep the game manageable I have defined buildings as covering a number of 'zones' – both vertically and in area – and these might cover more than one floor of a building, and ignore much the detail of the internal layout. I have done this to make the game reasonably fast-moving and to keep it simple – there is a wealth of detail; that could be represented, but in my view this would slow the game down considerably.

This game is unusual in that there is no 'enemy' played as such. Player cooperate to solve a difficult (or even insoluble) problem with limited resources – I guess this could be called a 'multi-player solo game'. The opposition comes in the form of randomly generated bombs and fires and damage that occur according to the games' simple fire propagation model.

In a typical game a player will control one or two appliances and maybe 4-6 stands of firefighters. As a club project – more buildings and more players make the game more dramatic.

Good luck, and I hope you find the game as interesting and challenging as we have.

Jim Wallman London November 2006

Level and Resolution

Individual vehicles represent individual vehicles.

A stand of firefighters or rescue worker models represents a group of 2 or 3 individuals. Using 25mm scale models, we use two figures on a circular base around 25mm across.

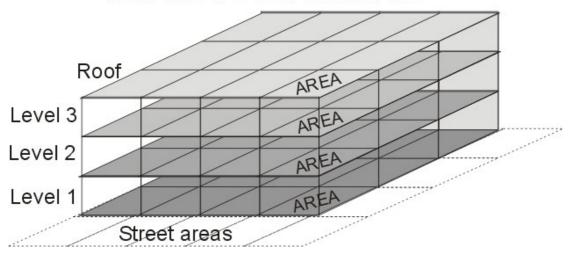
Model buildings / Factories divided up into areas approx 10cm across (see playing area below)

Time – each turn is about 5-10 minutes

The Playing Area

The game is played on a model building (or floor plans as an alternative). The building and surrounding streets are divided up into *Areas*. Typically, an alleyway or side street is 1 area wide – main roads are 2-3 areas wide. An area on the model is about 10cm across for 25mm scale models, or adjusted depending on the model scale as appropriate. In height, buildings are divided up into vertical *Levels*. A level might be more than one or two floors. Typically the tallest buildings are 4 or 5 levels high not including the roof, most city buildings are 2 or 3 levels. Suburban buildings will be mostly 1 level.

BUILDING LAYOUT SCHEMATIC



Sequence of Action

- 1. Roll for fire spread and jumping
- 2. Roll for fire growth
- 3. Check for *ember* reignition
- 4. Update damped down status
- 5. Roll for bomb run (unless *all clear* has sounded) and test for bomb impact points (if any).
- 6. Movement and pipe laying. Test for proximity to fires if close.
- 7. Assess damage and roll for building collapse etc.
- 8. Check water supply / pressure
- 9. Extinguishing fires, damping down and rescue
- 10. Update firefighter status (tiredness etc)

Movement and Actions

Unit	Movement / Action
Vehicles	Any distance on road provided there is a clear route
Horizontal Hose deployment	1 length (= 2 areas) per turn.
Vertical Hose deployment	1 length (= 2 levels) per turn using
	stairways 🛉
	½ length (= level) per turn using
	ladders 🛉
Recovering hoses	2 turns per length
Unencumbered foot movement	6 areas per turn
	6 levels per turn (using stairwells)
	3 levels per turn using ladders
Ladder deployment	Hook ladders – 1 level per turn
	Other ladders – 1 ladder per turn 🛉
Towed pumps	1 full turn to deploy / recover 🛉

† = needs a firefighter stand present.

Vehicles may not cross areas of street blocked by rubble or cratered. No units can enter a fire area.

Entering Locked Buildings

All firefighter units can always enter buildings, whether locked or not because they carry tools to break in if necessary. This only takes a few seconds so does not delay them significantly in game terms.

Crew Status

Firefighters (and others) might have to operate for a long period and will become tired.

After 30 turns of activity they become Tired

After 60 turns of activity they become Exhausted

A base can recover one level after resting for 1d6x2 turns.

If the unit can visit a canteen truck, this time can be halved. (though canteens did run out of supplies on busy nights.....)

Orders and Communications

For much of the Blitz the fire service had no radios for its operational communications. Later in the war a few radios became available but these were mainly used by senior officers.

A base should be marked as representing the player. In order to direct the fire crews under your control you must physically visit them – being within one area to issue orders.

Units will continue to do what they have been tasked to do until they receive fresh orders or until they have extinguished all fires within range – whereupon they will move to deal with the next nearest fire as best they can. They will always act to preserve themselves (for example if a building nearby is about to collapse).

The main way of issuing orders remotely is by messenger. There were always a number of boys on bicycles attached to a fire station and you might use these. Motorcycle messengers were used to send messages back to the Control Centre to report on the situation (or request reinforcements) and who might arrive from time to time with fresh orders from Control.

To send a message, simply write it down and this will be the orders to the recipient unit – or the report to HQ etc



Equipment

Unit

Escape Carrying Unit



- Capabilities / Equipment
 1 x Level 2 wheeled escape ladder
- 4 delivery pumps 10 water points on board.
- 2 Fire teams
- 10 lengths of hose

General Appliance



- 2 x Level 1 ladders
- 4 delivery pumps
- 10 water points on board.
- 3 Fire teams
- 10 lengths of hose
- Towing attachment

Turntable Ladder Unit



- 1 x Level 4 turntable ladder
- 4 delivery pumps 6 water points on board
- 2 fire teams
- 10 lengths of hose

Heavy Unit



- 1 x level 1 ladder
- 2 x level 1 hook ladders
- 1 delivery pump
- 2 fire teams
- 10 lengths of hose
- Rescue equipment

Unit	Capabilities / Equipment
Small pump team	Taxi/Car towing trailer pump, 2 fire teams 6 lengths of hose
Medium Pump	Trailer mounted pump. 4 delivery pumps
Light Pump	Trailer mounted pump. 2 delivery pumps
Wheelbarrow Pump	Portable pump designed to be used in confined spaces and capable of being carried for short distances by a fire crew base. 1 delivery pump
Auxiliary Towing Vehicle	A light van capable of towing trailers. 1 x Level 1 Ladder 4 lengths of hose 3 fire teams
Hose laying lorry	If one end of the hose can be fixed, this vehicle can deploy hose in the open at a rate of 6 areas per turn. 10 lengths of hose 1 fire team
Canteen Truck	Helps fire crews keep going longer. Carried rations for 40 bases/turns
Despatch Riders HIGNETT'S CIGARETTES AIR RAID WARDENS AND CIVILIAN VOLUNTEER DESPATCH-RIDER	Main means of communication as there are no radios on the vehicles. Mainly female riders.
Messenger Boys	Another key form of communication via 16-17 year old boys on bicycles.

Unit	Capabilities / Equipment
Mobile Dam Unit	Carries canvas water reservoir with capacity of either 10 or 20 water points. This takes 3 turns to deploy. 1 fire team.
Extra Heavy Pump	Skid mounted pump with self-contained engine. Takes 2 moves to unload. 6 Pumps
Heavy Pump	Skid mounted pump with self-contained engine. Takes 2 moves to unload. 4 delivery pumps
Water Unit	

THE FIRE

Fires are given a level, from 1 to a maximum of 5. We represent fire level by a small red d6 placed on the model.

GROWTH

A fire usually starts at level 1
Each turn roll 1d6 - score 6 and it goes up a
level - fires never get higher than level 5
+1 to die if any adjacent area is already on
fire.

SPREAD

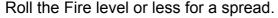
Roll for each adjacent not-burning flammable area.

Once a fire has spread to an area no further rolling is necessary.

Spread is not diagonal.

Vertical spread will occur up or down a

stairwell. Level 4 or 5 fires will have a chance of spreading to the level above.



A newly spread fire is always level 1 initially.

- +1 per level of dampness if the adjacent area is DAMPED DOWN.
- -1 if the adjacent area is embers
- +1 if the adjacent area contains a fire hose team actively firefighting

Fires will not spread into empty road areas – but they can spread to vehicles and piles of rubble.



An incendiary that lands on an empty road area can cause spread into adjacent areas if those areas are flammable.

However, it cannot rise beyond level 1, and burns out after 5 turns.

JUMP

Fires will not set fire to roads (normally) but they can jump across gaps.

Fires at level 5 can jump a 1 area gap (2 areas downwind)

Roll 1 to jump. Use all the normal modifiers for fire spread above.

STRONG WIND

If a strong wind is blowing -1 to die roll on areas downwind.

FLAMMABLE MATERIALS

Some area contain materials that are particularly flammable. These might be wood or spirit stores, oil, petrol etc.

These are marked on the model.

Effects are:

Oil Tank: +1 on any die for initial spread into the area. If the tank catches it immediately becomes a level 5 fire and automatically spreads to all adjacent areas

Petrol Tank: +1 on any die for initial spread into the area. If the tank catches it immediately becomes a level 5 fire and explodes. Use the HE Bomb rule for effect.

Wood store or similar: Normal chance to spread into the area. Once burning, +1 to dice for fire growth

Firefighting

Roll for each water stream upon the area. The rolls are sequential, so a fire can be progressively extinguished within a turn.

Roll 1d6 - score **equal to or more than** the fire level to reduce the fire by 1 level.

- -1 if the crew is 'tired'
- -2 if the crew is 'exhausted'
- +1 if two or more crews on the same hose
- -2 if an unmanned branch pipe

Pressure hoses have a maximum water projection range of 3 areas (including verticals) their effect depends on range:

1 area +1 to die 2 areas normal 3 areas -1 from die

Embers

Fires that drop below 1 are marked as 'embers' - these are a potential source of reignition.



Reignition – roll 2d6 every turn for each ember area. Score 12 for it to re-ignite.

Permanently extinguishing embers require a fire team in the *same area* with water – roll a 6 to put out *all* the embers.

Damping Down

An area can be doused in water to discourage re-ignition or fire spread. It takes one turn to damp down an area one level of dampness.

The maximum dampness is level 5.

Every time a fire attempts to spread to a damped down area and fails as a result of the dampness level, the area loses one level of dampness. If fire spreads to a damped area, all dampness is lost.

We mark dampness levels on the model with a small blue die.

Heat effects

Firefighters can try to press close to a fire.

However, fires tend to be quite hot. Combine the fire levels of all adjacent fires to the area you wish to move into – and roll that number or more on 1d6 to be able to enter that area.

If the fire state increases in adjacent area to your team, roll again (as above) to be able to stay in that area.

Fire Parties

Small groups, often of civilian volunteers or even schoolboys, operated in some areas forming firefighting parties. These would have a stirrup pump and buckets of sand and water.

There were really only effective at dealing with small fires, and then only if they caught them early – but their advantage was that they would be on the spot and able to act at that early stage.

They were famously involved in protecting St Paul's Cathedral's roof from incendiaries during the heavy raid of 29 December 1940.

A single fire party rolls 4,5 or 6 to extinguish a level 1 fire.

It only has one attempt before it needs to replenish its water/sand (which can be done in one turn from any domestic water source or hydrant.

Water

Water supply is expressed in terms of WATER POINTS.

A water point is enough water for one turn of firefighting for one hose.



Water delivery is expressed in terms of DELIVERY PUMPS – which is the number of hoses that can be supplied by a given appliance.

A PUMP will deliver one WATER POINT to one hose per turn.

Some appliances will have more than one PUMP (see *Vehicle Characteristics* above)

Sources of Water

a. Onboard water

Some vehicles carry a limited supply expressed in terms of a number of WATER POINTS of supply. This is consumable and needs to be recorded separately.

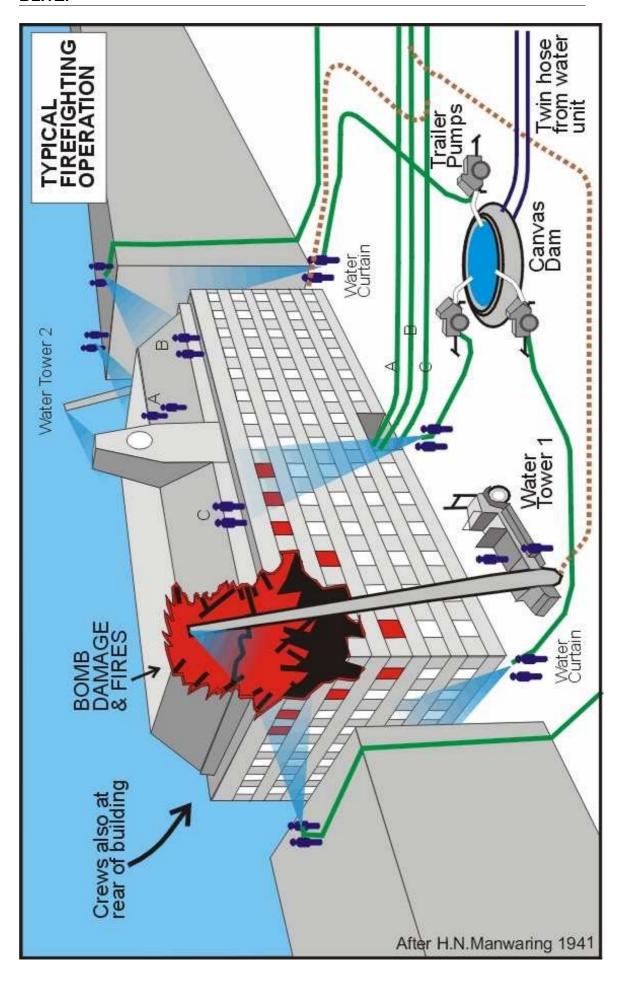
- b. Fire hydrants if the mains water is working a fire hydrant can supply water. Each hydrant has a pressure number indicating the number of WATER POINTS per turn it can supply to a given appliance.
- Only two appliances can connect to one hydrant hence the need for portable dams. Don't forget it requires a length of hose to connect the fire appliance to the hydrant.
- c. Other sources of water are the river, swimming pools and later on deliberately flooded basements of bombed out buildings. These will be given a number of WATER POINTS anything from 10 to 1,000. Each pump appliance carries a special filtered pipe for connecting sources of open water to the appliance. This is additional to the standard hose lengths carried.

Hoses

Hose is usually deployed in standard *lengths* that are 2 areas long (around 50 feet). These lengths are indivisible.

There is a maximum effective length of a hose of 14 lengths (around 700 feet). After that pressure is too low for the hose to be effective.

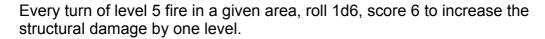




Structural Damage

An area has five levels of damage – which it moves up from one level to the next until it reaches 'destroyed' when collapse occurs. We represent the damage level by a small black 1d6 placed on the model.

- 1.Building is sound
- 2.Light Damage
- 3. Medium Damage
- 4. Heavy Damage all occupants become casualties.
- 5.Destroyed all occupants become casualties



Where a lower level is destroyed with intact level above it all the intact levels collapse onto it, causing rubble spread into all adjacent ground floor levels.

Rubble spread into a ground floor building level increases the damage state in that area by one.

Any firefighters or vehicles in rubble collapse areas roll to escape to an adjacent area. If no escape is possible they are automatically casualties (see below). Roll for each vehicle – score 6 to escape.

Roll for each emergency services team – score 3, 4, 5 or 6 to escape

Bombing

The bombing rules can either be used to create the initial scenario, or can be used to make the players' job more difficult.

The Bomb Run

Roll 2d6 each turn to see if a bomb run occurs: Score 2 or 3 = *All Clear* sounds – no more bombing can occur in the game.

Score 4 to 11 = Nothing this turn.

Score 12 = Bombs are being dropped in the game area



If bombing has occurred in the playing area, roll 1d6 for what is dropped:

1 = 2 x incendiaries 2 = 1 x HE

 $3 = 4 \times incendiaries$ $4 = 2 \times HE$

 $5 = 6 \times 10^{-2} \times 10^{-2$

The location of each hit is determined by dropping a separate 2cm square piece of paper for each bomb from a height of approx 1m above the centre of the table. Any pieces that miss the table should be re-dropped until they hit some part of the playing area..

The area it lands in is the impact area.

Incendiary Bomb effect on buildings

An incendiary will start to burn on impact, and automatically cause a level 1 fire in the area is hits.

HE Bombs effect on property

An HE bomb will automatically destroy the area it hits, and damage all adjacent areas / levels.

Roll 1d6 for damage – the score is the damage level (see Structural Damage above) the area is reduced to (5 or 6 = Destroyed)

If the bomb hits a road, a DESTROYED result causes an impassable crater.

Damage to People and Vehicles

An HE bomb will automatically kill any personnel in the area it hits, and destroy all vehicles and equipment in the area. It will also sever all hoses running through the area

Each adjacent area is affected too:

Roll for each personnel base – score 6 and they escape unharmed, otherwise they are casualties – see *casualty status* below.

Roll 1d6 for each vehicle, pump or hose line – score 1, 2 or 3 and the vehicle is knocked out or the hose cut.

Casualties and Rescue

All personnel or civilians caught in a collapsing building are replaced with a 'buried casualty marker'.

Their status (killed or injured) cannot be determined until they are rescued/recovered.

Rescue Teams cannot start rescue operations in an area until the fires are out.

Initial Rescue

Once one or more rescue teams are present, roll 1d6 per buried casualty – only one roll per turn per rescue team is allowed.



1, 2 or 3	Cannot find casualty – need to search further	
4	Possible location of casualty identified – but need digging	
	out by Heavy Rescue	
5	Casualty located and can probably be dug out immediately	
	– roll 6 to dig out.	

6 Casualty located and doesn't need digging out

Heavy Rescue

These are teams of burly ex-builders with a truck full of lots of tools. They can dig quite deep to rescue people.

This takes a lot of time, however, roll 1d6 x 5 turns for digging time.

Casualty Status

Once a casualty has definitely been found, roll for its status

1 to 4 Dead

5Badly injured – must go to hospital and might still die. 6Lightly injured – needs medical attention but will be ok.

If a doctor is on hand +1 to the die roll.

Medics and Ambulances

An ambulance crew can move a casualty up to 2 areas per turn. An ambulance can carry 3 casualties at a time.

Mortuary Crews

It is important for morale to remove the dead as quickly as possible. Mortuary crews can move a recovered body up to 2 areas per turn. A mortuary lorry can carry up to 8 bodies at a time.

Models and Figures

If, like me, you are new to firefighting models, here are some ideas.

Firefighters and rescue workers. Nearly everyone had a 'tin hat' – basically the British army style helmet. So for figures, any helmeted figure can be converted – though WW1 British infantry (in helmets) would be best. Plastic figures are easiest to convert – by carving off packs and weapons and replacing with bits of wire to represent hoses or other tools.

Civilians. Many manufacturers make suitable civilian figures to represent bystanders or rescued and evacuated civilians. Very few make them with appropriate hats, though (pretty well every male wore a hat). You might find some of the role playing figures for 1920's or 1930's adventurers (with weaponry removed) could do (though it could get quite expensive to form a crowd of them).

Vehicles: Lledo (now Corgi) make a good Dennis fire engine with ladder of the period and a number of rescue vehicles, and a London Taxi. They also make period trucks and buses which can help add some flavour to the street. Many of these are no longer made but they can often still be picked up on Ebay for a couple of pounds.

Matador Models (matadormodels.co.uk) do a brilliant collection of period vehicles, including a Taxi with towed pump and the basic Dennis fire engine.

Of course, this is also an excellent opportunity for those who like to 'kit bash' and make your own conversions to basic models.

Buildings. In this game, because of the way we need to represent the fire and damage, model buildings from a manufacturer are not always much use. It is easy to make the buildings for the game out of card or foamboard, and that is recommended.



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