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## BOMBING BRITAIN

### The Basics

by Bryan Brinkman and Bruce Harper

### Introduction

Unless the Axis can accomplish something significant in the early years of the war, the ultimate fall of Berlin is a certainty. USAT and RGT rise steadily, leading inexorably to American and Russian entry into the war. The ability of the U.S. to mobilize massive forces, coupled with the seemingly unending growth of the Russian bear, make the long term prospects of the Reich tenuous.

In *A WORLD AT WAR*, of course, the surrender of Germany and Italy don't necessarily mean an Allied victory. Even if the Axis don't achieve such a strong position as to win the war outright, usually by defeating Britain or Russia, they can run out the clock by holding out past their historical surrender dates. For Germany the break even point is Summer 1945. Generally the Axis will, after the fall of France, pursue the war so as to leave open the possibility of a decisive victory, while at the same time trying to hamper the Allied ability to turn the tide and exert overwhelming pressure on the German military in time to win the game.

In game terms, Britain's navy, army and air force are strong enough to keep the Axis player somewhat honest while he methodically conquers much of Europe. However, Britain is hamstrung by her economic situation. Once France falls, Britain must increasingly rely on the U.S. for BRPs and oil to keep her economy and military fuelled for offensive operations. Britain's BRP base and total are partially dependent on the survival of her colonies and overseas territories and the protection of the vital Atlantic and Indian Ocean convoy routes with their transports. Loss of these territories to the Axis and reductions in the Western Allied transports levels from Axis submarines and raiders will adversely impact Britain's ability to wage war against the Axis, to Russia's possible detriment.

The fall of France allows the Atlantic U-boat campaign to really take hold because of the additional +2 modifier for the French ports. German raiders will also be able to take to the high seas with far less risk of interception en route to the Atlantic SW box. The British need to replace lost transports and repair or construct new ships places heavy and unavoidable demands on Britain's construction limit in late 1940 and 1941. Transport losses also reduce Britain's construction limit, making the turns from the fall of France to American entry a nerve wracking period for the Allied player.

A German bombing campaign can put added pressure on the British when they are at their most vulnerable.



### The Operational Area

There are three key economic centers in Britain which lie comfortably within bombing range of the newly acquired airbases in France and the Low Countries:

**38.32 BRITAIN:**

A. London: 30 BRPs.

B. Manchester, Birmingham: 15 BRPs (each).

Once they control the Low Countries and the channel ports, the Germans will have no trouble finding enough bases from which to bomb Britain. Things are not quite as easy for the British. There are only two hexes (H23 and G25) from which British AAF may cover all three British key economic areas without being subject to Axis counterair attacks. H23 is the magic hex from which British AAF can do everything, but British AAF in G25 cannot cover the three southern British beaches, and therefore are out of play as far as a German seaborne invasion is concerned.

This makes an assessment of the strength of the British air defenses against German bombing difficult, because the British have to decide whether to expose some of the RAF to counterair attacks, or whether to be content with using only ten AAF to counter the German bombers.



## The Constraints on the Axis

Any German bombing campaign is expensive, as Germany will have to spend 15 BRPs for an offensive and will likely lose AAF as well. While Germany can almost always afford at least one turn of bombing, unless German combat losses have been extremely light through Summer 1940, Germany will often have to make a tough choice between continuing the bombing campaign against Britain or building up its air and armor forces for a Summer 1941 attack against Russia. Quite apart from losses in the Polish, Norwegian and French campaigns, Germany must build its expanding submarine force pool and launch the *Graf Zeppelin*,

*Bismarck* and *Tirpitz* so as to maintain its raider threat.

In short, any German bombing campaign against Britain must be seen in the context of the Axis war effort as a whole. The Germans can't paint themselves into a corner by "over-bombing", only to find they have prevented themselves from attacking Russia effectively.

Of course, the Axis always have the option of not invading Russia at all, as explored in this issue of ULTRA, but first let's look at the bombing campaign in the more common context of an historical Axis Poland-France-Russia strategy.

So how much does it cost to conduct a bombing campaign against Britain and for how long can it be continued? Moreover, what are the benefits of bombing for the Axis?

## The Cost of Bombing Britain

The cost of bombing Britain depends largely on how the British react. It is up to the British how many air factors they employ against the Germans:

**26.441 DEFENDER ASSIGNS AIR UNITS TO DEFENSE:** Once the attacker has announced the composition and targets of all strategic bomber forces, the defender assigns some, all or none of the available defensive forces to the defense of each target.

Once the British have assigned their defensive air, air combat is resolved with an equal number of German attacking air factors (26.451B). The British therefore determine whether air combat occurs at all (they can just let the Germans bomb) and, if air combat occurs, how intense it will be (the British can commit some or all of their available air to fight the bombers).

The British capability and willingness to engage the attacking German air units will determine the costs to both sides, both in absolute terms and in how those costs are distributed. For Germany, there will always be a 15 BRP cost for an offensive, plus possible losses of air units to air combat and to the defenses of the bombing target. Britain will incur losses from air combat and from the bombing itself.

For both sides, there is a difference between BRPs spent or lost and air units which are eliminated. Both can be assessed in terms of BRP value, but air units which are eliminated can, if desired or needed, be left unbuilt, while the BRPs are gone. The 15 BRPs spent by Germany for its offensive also may cover other activities, such as raiding and possibly completing the conquest of Norway. Still, these 15 BRPs are very real and must be considered in any analysis.

The expected results of various bombing runs can be summarized. The following analysis assumes:

- the British have a favorable +/-1 in air combat due to radar.
- no British AAF can be counteraired.
- the Germans are bombing London, which may incur a maximum of 30 BRPs of bombing losses each turn.
- the British have an airbase in London, so it has a defense level of 4.
- both sides roll a “7” for all air combat and SW combat dice rolls.

The starting point of the analysis is a bombing attack by all 30 German AAF, with no British opposition. This gives an idea of the level of damage the Germans may inflict on the British, as well as providing a starting point for further analysis.

Basic Bombing (unopposed)	
	Air Units
20 AAF (e), 10 AAF (b)	none
Air Combat Losses	
None	none
Bombing Losses	
10 AAF	defense level = 4
1/1	2/5 + 8/0 = 10/5
3 BRPs	30 BRPs
Total Losses	
15 BRPs + 1 air factor	30 BRPs + 0 air factors
18 BRPs	30 BRPs

The German air force, attacking at full strength, is easily capable of firestorming London. If the British don't want to allow this, the RAF will have to fight. But how many AAF should the British commit?

The next chart assumes five British AAF intercept the German air:

Basic Bombing (opposed by 5 British AAF)	
	Air Units
20 AAF (e), 10 AAF (b)	5 AAF
Air Combat Losses	
2/4	2/2
Bombing Losses	
7 AAF	defense level = 4
1/1	1/4 + 5/0 = 6/4
3 BRPs	22 BRPs
Total Losses	
15 BRPs + 3 air factors	22 BRPs + 2 air factors
24 BRPs	28 BRPs

In comparison to the uncontested bombing attack, interception by five British AAF increases the cost to Germany by six BRPs and reduces the cost to Britain by two BRPs. It's important to keep in mind that the dice rolls themselves give rise to a large variation in these results, of course, and it's also true that by opposing the German air the British put their own AAF at risk. Even so, the analysis shows a possible trend that is worth exploring further. Will an increased British commitment shift the balance further in favor of the British?

Let's assume that 10 British AAF intercept the German air:

Basic Bombing (opposed by 10 British AAF)	
	Air Units
20 AAF (e), 10 AAF (b)	10 AAF
Air Combat Losses	
4/5	3/5
Bombing Losses	
6 AAF	defense level = 4
1/1	1/3 + 4/0 = 5/3
3 BRPs	18 BRPs
Total Losses	
15 BRPs + 5 air factors	18 BRPs + 3 air factors
30 BRPs	27 BRPs

As expected, the German losses went up, but the British losses stayed about the same, with the BRPs lost to bombing dropping and the losses in air combat going up by almost exact the same amount. This is a curious finding which should be explored further.

In the next example, the British commit 15 AAF. This must be considered a hypothetical, though, because unless the British have invaded Ireland there are no British airbases safe from German counterair which can cover London.

Basic Bombing (opposed by 15 British AAF)	
	Air Units
20 AAF (e), 10 AAF (b)	15 AAF
Air Combat Losses	
6/6	5/6
Bombing Losses	
4 AAF	defense level = 4
1/1	1/1 + 2/0 = 3/1
3 BRPs	10 BRPs
Total Losses	
15 BRPs + 7 air factors	10 BRPs + 5 air factors
36 BRPs	25 BRPs

In this example, the British losses are slightly lower, but it must be stressed that if there are British AAF within range of bases on the continent, the Axis will counterair them.

What this analysis shows is that the BRP cost of bombing Britain goes up for Germany as more British air units oppose the bombing. This is hardly surprising, although it helps to be able to quantify the cost, which (including the 15 BRP cost of the German offensive) ranges from 18 BRPs (no opposition) to 36 BRPs (the hypothetical opposition by 15 British air factors).

What is more surprising and perhaps more interesting is that the cost to Britain is more or less the same, regardless of how many British air factors oppose the bombing. The British will lose around 25-30 BRPs, one way or the other. The British can control, up to a point, whether they lose current BRPs or AAF, the rebuilding of which might be safely deferred.



## Construction Effects

While there are certain advantages to the British accepting BRP losses rather than losing air unit losses, the British must remember that their construction limit is reduced by one for every three BRPs lost to bombing:

**26.71 BRP LOSSES:** BRP losses from the strategic bombing of economic targets are deducted from the targeted major power's BRP total.

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**B. EFFECT ON CONSTRUCTION LIMITS:** For every three BRPs (round down) lost to bombing of a key economic area or IC, the construction limit of the defending major power is reduced by one in its next player turn (27.331). Japanese bombing of the Australia and India boxes affects both the Australian or Indian construction limits, as the case may be, and the overall British construction limit (71.321, 72.321). Axis and Japanese bombing of the Urals and U.S. boxes affects the Russian and U.S. construction limits, respectively.

This puts pressure on Britain from two different angles. If Britain fights, it loses air factors; but if Britain lets the bombers through, it loses BRPs and its construction limit is reduced. And if Britain runs out of

BRPs and incurs a deficit, then its BRP base is reduced and that reduces its construction limit in later turns (39.2). The Finest Hour may last a lot more than 60 minutes...

## Tension and Diplomatic Effects

Bombing Britain increases USAT. The two event modifiers which might apply are:

- +1 For every 15 Axis BRPs spent on offensive operations each turn. A remnant of eight or more BRPs at the end of the Axis player turn triggers an increase; a remnant of seven or fewer BRPs is ignored.
- +1 If 10 or more Western Allied BRPs are lost to European Axis bombing attacks in the current game turn (+1 maximum each turn).

Against this must be balanced the effects of firestorming one or more British objectives. The firestorm rules are short and are set out below:

### 26.9 FIRESTORMS:



**26.91 CREATION:** A firestorm occurs in any eligible hex (26.92A) which sustains at least 25 BRPs of strategic bombing damage in one turn, although the actual number of BRPs lost is limited to the economic value of the hex (26.71A).

#### 26.92 RESTRICTIONS:

**A.** Firestorms may only be created in German, Japanese and British cities and in Russian cities which contain ICs, Vladivostok and Irkutsk.

**B.** Each hex may be firestormed only once per game.

**26.93 EFFECTS:** If a firestorm occurs, a firestorm marker is placed on the hex, and the following political and diplomatic effects are triggered:

**A.** The surrender or resistance level of the target major power is permanently reduced by one.

**B.** The attacker receives one additional DP in the next YSS.

**26.94 NO EFFECT ON SUPPLY OR OIL RESERVES:** Firestorms have no effect on supply or oil reserves.

A more detailed analysis of USAT during an extended British bombing campaign is found in the next issue of ULTRA. For the moment, it's enough to point out that as USAT increase, the number of BRPs the U.S. may grant Britain to offset bombing losses also increases. This balancing mechanism can be crucial to keeping Britain in the game.

## Conclusion

It is not necessary to calculate the German BRP levels to conclude that if Germany intends to invade Russian in Summer 1941, it can almost always afford to bomb Britain in Fall 1940; it would likely have to abstain from other operations to continue bombing in Winter 1940; and bombing for a third turn in Spring 1941 will probably be impossible unless German combat losses have been unusually low.

On the other hand, if British air is drawn into combat, the British may end 1940 with unbuilt AAF, which will weaken Britain and allow the Axis to concentrate on Russia and perhaps also the Mediterranean. Bombing losses may also trigger a British deficit in Winter 1940, which will also slow Britain's recovery from the effects of the Battle of Britain, although not as much as in the past, because only 20% of the deficit would come off Britain's BRP base.

It is always surprising how quickly the British go through BRPs in 1940. The cost of protecting Britain's Atlantic lifeline increases significantly following the fall of France as German submarines become more effective operating from the Bay of Biscay. With air superiority over the English Channel, German raiders venture forth and may inflict additional transport losses on the British. Until USAT reach 25 and American BRP grants begin, Britain bears the full economic brunt of the Battle of the Atlantic. Even without a BEF catastrophe in France, indulging in expensive offensive operations in the Mediterranean or intervention in Norway, Britain will be hard pressed to withstand the BRP losses incurred from German bombing and the burden of rebuilding its air force without having its strategic position undermined in some way.

German bombing in Fall and Winter 1940 can leave Britain in a deficit position before the 1941 YSS, limiting the British possibilities until American BRP grants start to remedy the situation in 1942. With a reduced air force, the British may also be perilously exposed in the Mediterranean.

Of course a bombing campaign is also taxing on the Germans. If Germany is intent on attacking Russia in Summer 1941, it must have all its armor and air units built at the end of the Axis Spring 1941 player turn. In light of Germany's other construction and BRP priorities, including the construction of additional units produced in Spring 1941, extending the bombing of Britain into Winter 1940, much less Spring 1941, may not be possible.

A final point is worth mentioning. Even if the Germans don't forego Barbarossa, they may redeploy their air force from the eastern front at the end of the Axis Fall 1941 player turn, so as to bomb Britain in Winter 1941. While this gives up any chance to take advantage of a mild Russian winter, it may catch an unwary Allied player off-guard if he has diverted too much British AAF to the Mediterranean. A sudden 15-25 BRP loss from bombing in Winter 1941 can ruin the British player's day if the U.S. is not yet in the war and the British have run their BRP level down too far.

Still, the biggest danger in bombing Britain may be to the Germans, if they become intoxicated with success and upset the timetable for Barbarossa. It is tempting, if the bombing campaign is going well, to "bomb just one more turn". The Axis player must determine the main thrust of his strategy. If he is going after Britain, then an intensive bombing campaign can be a crucial part of his strategy. But if the Axis aim to mount an aggressive campaign against Russia, then a bombing campaign against Britain is intended to reduce the Western Allied military capability sufficiently to give the Axis additional time to trap the Russian bear.

Under no circumstances should the Germans allow operational considerations to dictate strategy. If you doubt the wisdom of this advice, reread a good history of World War II!

