Strategic Bombing

Strategic Bombing (Strat Bombing) is also know in our game as Research, Development and Production (RDP) Bombing. Prior to the version that we currently have, all three subjects of RDP Bombing were taken into consideration. See the Previous Version section to learn how it used to work and the issues that it experienced and the reason for changing. Either side can utilize Strat Bombing in order to assist their side as a whole rather than being limited to only helping in a direct method at an Attack Objective (AO) or Defense Objective (DO) through Close Air Support (CAS).

Strat Bombing allows for a few different things that playing on the front lines does not provide to the players. First and foremost, it allows for a realistic Air War style of game play, meaning that things are "off the deck" and up where most bombing missions were done during the war, at or above 10,000ft (3km). This involves not only the bombers but also their "little friends" the escort fighters. Bombing from altitude is a whole different game when compared to low level bombing and being an escort is just as different to fighting over the front lines.

Other things that players can enjoy are things like a slower pace of game play and effecting the entire enemy's side rather than just a few kills here and there. A lot of WWIIOL's players are older and some of them do not grasp onto the high paced combat that is done on the ground or through CAS bombing. Although those same players thrive when it comes to organizing, conducting or being a part of and becoming prominent at Strat Bombing because it does allow for a non-high pressure situation, most of the time.

Strat Bombing throughout WW2 was a vital piece of the puzzle when it came to the war in general. It had crucial effects on the enemy and both sides put a lot of men, bombers, fighters and bombs into Strat Bombing. If you look at the majority of WW2 based games, none of them bring the aspect of Strategic Warfare into their game and they are only based on first person or small group effects and experiences. What WWIIOL has the ability to do is bring in a large number of players that aren't specifically attracted to those types of game play. Many of these players do not consider graphics as a key decision point when deciding to play a game or not because everything that happens is way up in the air and with units that aren't very close together. Although, they are attracted to playing a game where they can help an entire side against the enemy and play in a manor that requires groups of players all playing together in order to be successful.

WWIIOL's version of Strategic Bombing isn't perfect and has a number of issues but it also has the ability expand and grow into something much more complex and effective as a resource to bring new and old players to the game.

Current Functionality

Strat Bombing no longer allows one side to extend the time it takes for the other side's RDP cycle to complete. This means that the introduction of new equipment is at the same time for both sides. Instead, the current version of Strat Bombing slows the enemy's resupply timers. The scale at which the supply timers are slowed is consistent with the total damage to each side's factories. This becomes and issue when it pertains to the Allied side because each country's factories only apply to their own supply. Meaning that if an Axis bombing effort is applied to only one country, British, then the other country, French, is not effected. Both groups of factories need to be effected in order to apply the same amount of slowing to the resupply timers

Non Damaged (0%) Resupply Time	Max Damage (100%) Resupply Time
15 hours	30 Hours

Slowing down the other side's Resupply Timer means that whenever a unit, infantry rifleman, is killed it will take 15 hours to re-appear in the spawn list for that specific HQ unit if there is 0% damage to the side's factories. Now if there is 100% damage (very tough to do) done to the enemy's factories then it will take that same infantryman 30 hours to resupply. This has the ability to become a deciding factory in one side's gaining of towns during a Campaign. The biggest issue with this type of Strat System and its current implementation is that the supply is tied to the enemy's brigades which are movable by their High Command (HC). What this means for the Strat War is that groups of players could spend hours and days bombing the enemy and assisting their side with slowing the enemy resupply times but all an enemy HC has to do is move a fresh, non-depleted brigade in the place of a depleted bridge. They have basically just zeroed out all of the work that the other side has done if they have the same number of avialable brigades.

In order to have an effective Strategic Air War the different groups of players need to work with their respective HCs and the HCs must have buy in with their support. This comes into play with not only controlling supply so that the bombing group has enough bombers and fighters to conduct their missions but also in the methods that HCs apply so that they are "chasing" depleted brigades in order to use the slower resupply timers to their advantage. This becomes difficult because due to the player numbers we currently have in game, not enough brigades are being effected by depletion in order to properly effect an entire side with a slowed resupply timer.

Current Issues

At a quick glance Strat Bombing seems to be heavily weighed in the Allies favor as they have half as many factories to destroy in order to achieve 100% destruction of the enemy's factories. The opposite could be said in regards to the Axis bomber doing more than twice as much

damage to factories than the Allied bombers. This isn't the total truth and there are actually a number of different variables that all come into play when talking about Strat Bombing as a whole. All of the below items, and other that I may have missed, are specific variables that all change how the overall Strat Bombing is weighed:

- Bomber Munitions Load
- Bomber Munitions Type
- Bomber Survivability
- Bomber Defensive Armament
- Bomber Ease of Use
- Bomber Speed
- Bomber Fuel/Oil Amounts
- Number of Factories
- How Factories Effect a Side
- Distance to the Factories
- Types of Units that can Damage a Factory

Unfortunately, when the original developers added Attack and Medium bombers to the game, they did them in a different way for each side. The Allies got two Attack bombers which were the British Boston (Havoc), the French got the DB7 and the Germans a Medium bomber which was the He111. All three of these bombers can play a part in Strat Bombing but normally only the DB7 and He111 are used as they have the heaviest bomb loads per side. As you can see below, the He111 has over twice the bomb load and destructive power that the Allies have. When it comes to speed, the DB7 is much faster than what the Axis have.

The way factories work, per country, is also an issue that effects mostly the Axis side as they have to bomb two separate groupings of factories in order to inflict the same amount of Supply Timer delay for the entire Allied side. Due to movable bridgade, this also exacerbates the issue as a different country's brigade, which is not effected by Strat Bombing supply timer delays, can be quickly moved into to replace and effected brigade. This used to not be such an issue when movable brigades weren't a thing and British/French towns were split up between the northern and southern towns. At which point the Axis bombers would focus on a specific country's factories and then the HC would only attack those towns.

After everything is taken into account, DB7s being faster than He111s, He111s having over twice the bomb load than DB7s, Axis needing to bomb twice as many factories as the Allied and distances to the factories from starting airfields things surprisingly match up fairly well. The players have dealt with this set up for many years and it definitely could be made better but most of the solutions include the introduction and ability to choose different bombers for each side. The Allies have long wanted a Medium bomber what was slower but packed a heavy bomb load and the Axis have long wanted to have an Attack bomber with a lighter bomb load but faster speeds. After a lot of discussions in the forums by players and CRS, the consensus seems to be that bringing the Wellington for the British, the LeO451 for the French, and the Ju88 for the Germans to the game would solve a lot of these problems and allow for greater playable options.

Factory & Bombing Specifics

Visual damage is still tied to the old functionality where a factory will remain showing as "up" and "not damaged" until 80% damage is applied to the factory. At which time it will show as "down" or "destroyed". This is sort of a false advertisement as the "down" state is not really a totally destroyed state. Factories can continue to be damaged until they reach 100% damage. The factory will continue to show as being "down" until they reach 20% damage at which time they will revert to an "up" visual status but still continue to repair themselve. To improve on this visual damage state, multiple (8) different damage states could be created, say one building shows as destroyed per X% damage. This would allow for a more realistic method of showing the damaged state that a factory is in.

The factories are a pretty large target, 400x400m, and when bombing the factory, bombs must hit within the walls of the factory in order to apply damage to that specific factory. It's not easy but it's not that hard and it just takes practice to get good at it. Lining up is the most difficult part but with the latest UI update to the map, which uses an arrow around a ring for directional heading, it makes it quite easy. Prior to this new UI, bomber pilots has to utilize Lat/Lon coordinates in order to line up properly.

Factories repair on a 10 minute update schedule and repair themselves according to the level set in the **blitzWor.csv** file, the below current configurations. This file also controls things like Damage Threshold Joules and the Max Damage Joules which can be updated in order to change how bombs effect the factories, how long they take to rebuild, and what ammo types are able to apply damage to factories. Factory Repair Times have recently changes from 27 hours to rebuild from 100% damage up to 48 hours. This has been something the players have been wanting for a while now and it will give Strat Bombing more of an impact as their damage will stick around longer and allow for a weekend long delay rather than only a day.

	Allied	**Axis**
Total Factories	9 British / 9 French	9 German
Canterbury	#1, 2, 3	
Ashford	#4, 5, 6	
Whistable	#7, 8, 9	
Essen		#1, 2, 6, 7

Dusseldorf		#3, 4
Koln		#5, 8
Frankfurt		#9
Abbeville	#1, 2, 3	
Montreuil	#4, 5, 6	
Ameins	#7, 8, 9	

	Max Damage Joules	Damage Threshold Joules	Repair Amount Max	Repair Amount Per Update (10min)
Factory	7,900,000,000	13,500,000	10,000,000	34,700

	DB7 (French)	Boston (British)	He111 (German)
Armament	8 x 100kg GP Bomb (Different type of explosive which makes them more powerful than British bombs)	8 x 250lb GP Bomb	8 x SC250He Bomb
Damage Joules Per Bomb	210,000,000	128,578,000	495,652,430
Bombers Needed for 100%	4.7	7.6	1.9
Cruising Speed (5km)			

Previous Version

The previous version of the RDP Bombing game consisted of a more complicated system but allowed for more impact to the game play of the enemy's side. The RDP system involved allowing HCs to select which new equipment was added for an upcoming tier change. When RDP Bombing was conducted, the rate at which a new tier was produced was slowed down. This meant that one side that conducted proper RDP Bombing could slow the enemy's tier progression anywhere from one to four days. That may not sound like much but when a tier change was about to happen during weekend play and one side gets the next tiered equipment versus the other sides non-progressed equipment it turned into a big issue. There were multiple times that one side denied the other side their new equipment and when it came down to not allowing players to player with equipment while the other side could play with theirs, things needed to change.

In the HC system that was tied into the overall RDP system, different units had values assigned to them. During tier progression, the HCs would gain a certain amount of value available to them by the time the tier progression completed. Using that overall value, they could "purchase" either new equipment or more equipment of what they currently had at that time. This allowed for a very dynamic type of strategy that the HCs could control but this method also had issues. HCs continually added to tank or infantry numbers instead of bringing in one side's new planes. This didn't happen to only the Air Forces but regardless the branch that was effected, it allowed an HC to dictate which equipment were available to players to use in the game. This happened at the same time as the previous RDP Bombing system and made the entire situation seem even worse. CRS changed the entire HC and Strat Bombing systems into what we have today.

Below is a post from Doc, a prior CRS Producer that had a lot to do with the Strat Bombing side of WWIIOL.

> *A factory will produce resource points towards the completion of an equipment production cycle at a set rate. When that cycle is complete (100%) the equipment is ready and added to your equipment (spawn) lists. The equipment can be a new weapon introduced, raised production levels for current equipment you are already using ... or a combination of both which is normal.*
>
> *When you bomb a factory, it's output is reduced. It will show it's status as "producing" and will not look visibly damaged in game at this point. The factory continues to reduce output the further damage it takes, until it hits 80% damage, where it stops producing altogether, and in game will now appear destroyed, graphically speaking. It now shows 0% output. It will be listed as "under repairs" now until it recovers back to an 80% health state.*

When a factory is damaged enough its production is reduced (it is at 80% damage) and appears destroyed, you can still bomb it and take it all the way to threshold amount of damage, as this will mean it has to recover another 20% more than if you had stopped when it reached 80% damaged and is destroyed looking in game, graphically speaking. This means a longer recovery time to begin producing again.

Only when a factory repairs itself to 80% after being "under repairs" does the process start all over again and it is no longer "under repairs". If it never reaches 100% recovery it is easier to keep "under repairs" and overall output kept low or nonexistant.

Each town has several factories with the exception of Monchen-Gladbach, which has only 1. Factory output for a country expressed as a percentage of capacity is measuring combined damage/output for all factroies, not just a single facility. All "factory towns" have 3 factories except Dusseldorf (4) Koln (4) and Monchen-Gladbach which has only 1.

It sounds more confusing than it is, because a factory that is at 100% health or repairs back to 80% will always produce until you bomb it to 80% damaged to stop it again. If left alone it must repair to 80% health (20% damage) to begin producing again. If it is damaged but not to 80% damage, and repairs but not to 20% before being damaged again, it is going to produce. As long as it is between 80% damage and 20% damage it can produce, provided it was never stopped to 0% at some point. Being at 100% health allows it to "reset" and begin the process all over again.

Once reset (or as they are at campaign start, ie: all are reset) the target for bombers is to achieve 80%-100% damage, then the "repair cycle" starts and is much harder for the factory to recover from, you can keep it down forever if it never recovers it's 80% back and as long as it never reaches 100% it cannot reset, once reset it is harder to stop it producing.

Basically there are two states, "reset" and "destroyed" and each controls what it can do in either state. Once you take a factory from its "reset" state to its "destroyed" state you need to try to prevent it resetting again, as when it does, they become harder to stop producing.

Appearance (graphically) in game is much simpler... UP = reset and not yet bombed to 80% damage, DESTROYED = has been reduced to 80% damaged and not yet recovered to 80% health. UP can also mean it has recovered to 80% health (or 20% damage) and is or will be fully recovered (ie: resets itself) if not bombed again before it can reach that point.

Thus bombing an already destroyed looking factory is going to help keep it down, but if there is an undestroyed looking one at that town (ie: UP state) obviously you need to hit that one if you need to make a choice.

A factory will begin producing once recovered to 80% health (20% damaged) but won't reset until it regains 100% health back.

_____

Geof Rey
Evans
Producer/CRS

Continued Reading...

Forum Posts:

- http://forums.wwiionline.com/forums/topic/310321-rdp-discussion-concerns-ideas/

Websites:

- http://www.617dambusters.com

Documents:

- Sniper62's Post

- Jcritter's Bombing Guide