

A quarterly newsletter devoted to A WORLD AT WAR, GMT Games' strategic simulation of World War II. To order AWAW, go to www.gmtgames.com or phone 1-800-523-6111.

THE AIR WAR

What I am going to do with all that Junk(ers)?

by James Sparks

Introduction

Imagine you are one of the major powers in A WORLD AT WAR game. Throughout the game, there will be many decisions based upon air unit factors, quantity, quality and basing. A small error in calculations against the enemy's air assets can throw off your attack. Where success seemed likely, defeat now spoils your whole offensive. In this issue we are going to write about air units and how to utilize them

What are all these planes?



There are a number of different air counters in A WORLD AT WAR. From left to right, in the order displayed above:

- army air
- naval air
- elite Japanese naval air or kamikazes
- air transports
- interceptors
- strategic bombers

- jets
- air base counters.

Each type of air unit has one or more a distinct roles. Air units are versatile, and can be used for combat air support, defensive air support, search, cover, attack, strategic warfare, and basing.



A Big Topic

The use of air units in A WORLD AT WAR is a big topic, and so this is the first of a two issues dealing with the subject. Given the crucial role of air power in the World War II, this is hardly surprising.

The first article in this issue discusses air bases, which have more roles than some players may realize. First and foremost, of course, they provide a place from which air units may operate.

There follows a recounting of the various types of air units in the game, then an insightful analysis of ground support.

The Fall 2009 issue of ULTRA will complete our consideration of air power in the game.

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AIR BASES

Where do I Put all These Planes?

by Jim Sparks

While the number and quality of air units can be decisive, the placement of air units is also an essential component of skill in *A WORLD AT WAR*. If your air units are out of position, they may be unable to participate in an offensive and may be wasted on defense. In heavily urban areas such as Western Europe, this is purely a matter of experience and alertness, but in many other parts of Europe and in most of the Pacific, even more planning is required, as each major power has a limited number of airbase counters they may place on the board to augment the basing capacity of the chosen hexes.

Basing Capacity

Basing is covered in rule 18.1. The most essential rules are:

- Five air factors or 15 naval air squadrons may base in a city or port.
- Ten air factors or 30 naval air squadrons may base on a double city or port hex (Portsmouth/Southampton and Essen/Düsseldorf on the European mapboard; Haiphong/Hanoi, Pearl Harbor/Honolulu, Osaka/Nagoya, Tokyo/Yokohama and Truk in the Pacific).

- The one exception to the above basing limits are for Pacific theater one-hex islands and jungle or jungle/mountain hexes, which may only base three air factors or their squadron equivalent per city or port.
- Airbase counters increases basing capacity by acting as an additional city, so a city which also contains an airbase counter may base ten, rather than five, air factors (if the city was in a Pacific one-hex island, the basing capacity of the hex would be increased from three to six air factors); an airbase counter placed in a double city or port hex would allow the basing of 15 air factors (nine air factors in Truk or Pearl Harbor).
- Each Pacific one-hex island may also base a single naval air squadron, regardless of the presence of ports or airbases.

As noted above, in many areas of the board, air basing capacity is what it is. This always has to be taken into account when planning campaigns, but let's turn to air bases, which allow the players to increase their air basing capacity in particular areas.

Airbase Counters



The primary function of airbases is to provide the means to project more air power over a specific area. Major powers are provided with airbase counters as follows: Germany: 4; Japan: 3; Britain: 3 (Europe), 1 (Pacific); Russia: 3 (Europe), 1 (Pacific); U.S.: 3 (Europe), 3 (Pacific); Italy, France: 2; China: 1. The number of airbase counters may be expanded by production.

In Fall 1939, each major power may place an airbase as part of its initial setup, with the exception of the U.S. and Britain (Pacific only) in a Global War campaign game. Airbases may be placed at the start of a scenario as specified in that scenario. The U.S. may not place airbases in Europe until it is at war with Germany, and the U.S. and Britain may not place airbases in the Pacific until the turn after they go to war with Japan or the USJT level reaches 40.

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Airbases may be placed on the board only during the placing player's movement, unit construction and redeployment phases. Airbases may not be placed during the opponent's turn. Germany, the U.S. and Russia (1943 and thereafter) may place two airbases a turn; other major powers may place one airbase a turn. These placements are limited to one airbase in each of the three phases previously mentioned.



Airbases: Initial Placements

The initial placement of airbases by each major power, while not critical, serves to illustrate the factors to be taken into consideration when placing airbases throughout the game. Many of the recommended hexes are useful in subsequent turns.

Germany

Germany should place its initial airbase in any hex within range of Warsaw or the Polish air force. This allows Germany to use all 20 army air factors in its attack on Poland, whether to counterair, intercept defensive air support, assist in overruns or fly ground support. If the German player forgot to place an airbase and thereby limited himself to using 15 army air factors against Poland, he might fail to capture Warsaw in Fall 1939.

Italy

Since Italy won't be at war with the Western Allies for at least one turn, there is no urgency with respect to the initial placement of the Italian airbase. Good spots include Sicily (for future hindering of sea supply to Malta and naval operations between Gibraltar and Egypt; and to protect sea supply and sea escort between Italy and Tripoli); northwest Italy (to better project Axis air power into southern France once Italy goes to war); JJ24 (one hex northwest of Tobruk; to

protect sea transport from Italy and Tobruk and to project air power into Egypt); and Albania (to support attacks against Greece).

France

France normally places its first airbase in P21 (one hex southwest of Paris) to cover all of France's border hexes with Germany, without exposing the French army air units to counterair attack. As an added bonus, army air units in P21 cover the English Channel from raiders.

Britain

One idea is for Britain to place an airbase in E26 or E27 (one hex north of Rosyth) to prevent raiders from going around the northern sea hexes, while keeping the air as close as possible to the action further south. Since this function is often carried out by naval air units in Scapa Flow, most games see Britain placing an airbase in Portsmouth/Southampton or in the western desert.

Russia

Russia won't be at war with Germany for several years, but it may well be fighting Finland or Rumania long before that. Russia will want to place an airbase in Leningrad to help take the Finnish border hexes or near Rumania to help take Bessarabia, depending on its intentions.

Japan

Japan also has the luxury of a few years of peace, so it will normally place its first airbase in order to help prevent the construction of a Chinese partisan. This use of airbases, as well as others, will be discussed in more detail below.

China

China has no air units until U.S.-Japanese tension increases permit the construction of the Flying Tigers. The Nationalist Chinese airbase should be placed in Chungking to protect against possible future Japanese bombing.

Other Uses of Airbases

The main purpose of placing airbases is to be able to base air units where they normally cannot be based, allowing either a concentration of air power which normally cannot be achieved, or allowing air units to reach hexes which normally would be out of range. However, there are a number of other reasons for placing airbases, some of which have nothing to do with basing air units. The skilled A WORLD AT WAR player makes full use of all these options.

Creating Safe Havens for Air Units

We have already seen an example of this – the placement of a French airbase in P21, from which the five French army air factors do everything they could possibly do, except cover the two most southern Italian border hexes, while at the same time being out of counterair range until Germany captures some French hexes.

Another instance of this is H23, one hex west of Liverpool. A British airbase in H23 covers all four British beaches and is within range of all three British objectives, and therefore defends against both German invasions and bombing, without being exposed to Axis counterair attacks from France.

Whenever air units are intended to serve a defensive function and counterair combat is judged to be unfavorable, the placement of one or more airbases in a key hex may allow the defender to walk this particular tightrope. He will then be able to decide whether or not to use his air and invite interception by the attacker. In this way, the defender can at least control the level of air combat.

Providing a Retreat

After any round of counterair combat, the defender may withdraw his surviving air units to an eligible air base within range (18.523). Usually there are a number of such air bases, but in some situations, especially in the Pacific, the placement of an airbase may be required to provide a retreat.

Since airbases can't be placed during the opposing turn, the defender has to see this coming in advance and place the required airbase during his own turn. Otherwise he may find his beleaguered air units having to fight to the death against impossible odds.

Defending Against Bombing

An airbase raises the defensive level of bombing targets by one, at no RP or BRP cost to the defender. Unless there are better uses for the defender's airbases (and in some positions there may well be), it is prudent to place airbases in the most obvious bombing targets. For example, a British airbase in London in 1940 may prevent a firestorm, while German or Italian airbases in the Ruhr later in the game may save Germany some BRPs and keep the German construction rate a little bit higher.

Facilitating Redeployments

Air units are very mobile when it comes to strategic redeployments, but they require a chain of air bases in order to redeploy without sea escort. One or two well-placed airbases may be required to create the chain, after which air units can be redeployed to where they are most needed. As an aside, it is sometimes worth spending an RP and five BRPs to build a railhead at the most extreme end of such a chain, since the strategic redeployment of air units requires an objective or railhead at both ends of the journey.

Impeding Redeployments

Since redeployment adjacent to enemy airbases is prohibited, a less common use of airbase counters is to impede the opponent's strategic redeployments.

Preventing Partisan Construction

A common Japanese technique, as noted above, is to prevent partisan construction in China by blocking off hexes with airbases. This allows a few additional one-factor infantry units to be used elsewhere.

Preventing Attrition Retreats

By far the most dynamic and significant non-basing use of airbase counters is to prevent attrition retreats. To appreciate the full effect of this tactic, in which the airbase acts as a mobile blocking force, it is useful to review the precise rules as to where and when an airbase counter may be placed, as well as the rules governing attrition retreats:

18.142 AIRBASE PLACEMENT: Once play begins, major powers may place airbases on the mapboard as follows:

- ...

C. Airbases may be placed in any fully supplied hex, including hexes in the ZoC of enemy armor, controlled by the placing major power or an alliance faction partner, if permitted by the ally. A major power may not place an airbase in a hex controlled by an ally who is not a member of its alliance faction.

The hex in which an airbase is placed must be controlled and fully supplied by the placing major power. There is no other requirement and the presence of an enemy zone of control does not prevent the placement of an airbase.

Airbases are placed at the very start of the movement phase, before air units are staged and, more importantly for our purposes, before initial supply determination.

5. Movement phase.
 - a. Placement of airbase counters.
 - b. Staging of air units.
- ...
- i. Initial supply determination.

Hexes retain their supply status from the previous turn until initial supply determination in the ensuing turn:

30.47 DURATION OF SUPPLY: Ground units and hexes which are supplied during either initial supply determination or post-combat supply determination of a player's turn remain supplied until the end of initial supply determination of that player's next player turn...

Taken together, this means that the moving player may place an airbase in a hex which is far behind the opponent's lines, provided that he still controls it and that it was fully supplied during his previous turn. This situation arises most commonly in Russia in 1941 and 1942, when Germany is advancing.

The rule prohibiting attrition retreats into hexes containing airbases (or anything else) is 14.72:

14.72 HEXES NOT ELIGIBLE FOR ATTRITION RETREAT: The following hexes may not be selected for attrition retreat:

A. A hex occupied by an enemy ground, air or naval unit, airbase counter, rocket base, bridgehead, port counter, railhead, IC, fortification or fortress.

Armed with this knowledge, and a single airbase, the defender may be able to turn a relatively innocuous attrition into an effective encirclement. The sudden appearance of a 1-3 infantry or airborne unit by air transport, coupled with the unexpected placement of an airbase counter in a hex thought to be inaccessible, can be tough on the attacker, especially if the attrition level is high enough that the defender captures several hexes. What the attacker thought was a safe grouping of exploiting armor units may turn out

to be a trap, and the loss of even a few armor units to attrition can have a significant impact on the entire campaign.

In view of this, it is not an understatement to say that a single airbase, used in this manner in the right circumstances, can turn the tide in Russia and therefore affect the outcome of the entire war.

Two other points are worth making.

The first is that a German player who suffers this type of setback may well question the legality of the airbase placement and, once the rules are made clear to him (keep this page of ULTRA handy), may feel that he has been tricked and that his opponent is not being sporting. He would be wrong. This tactic, as well as many others, arise naturally from the rules and both players may use them. Skill at A WORLD AT WAR is not based on rule lawyering, but every game needs rules, and the use of airbases in this manner is quite different from pulling out an obscure rule and wrecking your opponent's position (when that happens, sportsmanship requires a less drastic outcome). The attacker may profess to wish that the rules were different, but really he is just wishing that he knew the rules.

The second point is that a skilled player will not only be aware of this use of airbases, but will provide against it when he can. By moving his exploiting armor differently (often less ambitiously), the German player may neutralize this technique. The threat of the airbase placement during an attrition therefore has an effect on the game, but only to the extent that it constrains the attacker. This is A WORLD AT WAR at the highest level.

Conclusion

Airbases are versatile counters which may be placed without any BRP cost. They are so useful that using an RP or two to produce additional airbases is considered a viable option by an increasingly number of players.

Air units, as the rest of this issue will discuss, are an essential part of the game. But the number of air factors alone is a crude measure of air power. Unless air superiority can be utilized, it will have little effect on play. Especially in Russia and the Pacific, airbases have a big role to play in realizing this potential/

Finally, while expanding basing capacity will always be the main function of airbases, players should keep in mind their other uses.

AIR UNITS IN A WORLD AT WAR

What Use are all These Planes?

by Bryan Brinkman

The seven different types of air units in A WORLD AT WAR can be used in a variety of ways. In this article we explore the uses, limitations and benefits of each of them by examining their basing, range, employment, strength and construction.



Army Air Units



Army air factors (AAF) are the staple air unit in the game. Their operational flexibility and diversity mean that you can never have enough of them and their cost means that you can't afford to rebuild too many of them per turn – although often you can't afford not to, either.

Basing (17.21)

AAF must base on land, whether it be in cities, ports, airbases, artificial ports or mapboard boxes. They may not operate from carriers under any circumstances.

Range (17.22)

AAF have a range of four hexes in Europe and three hexes in the Pacific. They may stage (18.21) up

to twice their range (eight hexes in Europe and six hexes in the Pacific). They may redeploy (28.341) freely, provided there is a chain of fully or partially supplied airbases.

The range of AAF may never be increased – they are unaffected by air range research.

Operations (17.23)

AAF are the most flexible air unit in the game, as they can perform all of the following functions:

17.23 OPERATIONS: Army air units may conduct the following air operations:

- A. Counterair.
- B. Air cover.
- C. Search during naval combat and modify submarine attacks.
- D. Attack enemy naval units at sea and in ports.
- E. Bomb enemy economic targets.
- F. Ground support.
- G. Intercept enemy defensive air support.
- H. Provide defensive air support.
- I. Oppose enemy bombing.
- J. Intercept air transport operations.
- K. Counter-intercept defending air which intercept air transports.

Operations 17.23B, C and D require that the AAF convert to army air squadrons (AAS) and operate subject to the restrictions set out in 23.11. A single AAF converts to three AAS when engaging in air combat with naval air squadrons (NAS), but when attacking naval units at sea, each AAF only contributes one attack AAS, with the other two AAS being employed for air cover and search. NAS are thus, in one sense, three times as effective as AAF when attacking naval units at sea.

Similarly, AAF engaging in operation 17.23E (bombing economic targets), are only one-third as effective as strategic bombers, in that two-thirds of the AAF must operate as escorts. Nevertheless, AAF escorts can absorb air combat losses and increase the number of bombers which reach their target.



Air Nationality DRM

As can be seen from the Air Nationality Chart, the Air Nationality DRM of AAF is affected not only by research, but also by winter effects and supply or oil effects:

Air Nationality Chart - 19.31A, 23.441A	
DRM	Nationality
2	Germany, Japan, United States, Britain, Finland, Sweden, Australia
1	Italy, Russia, France
0	All minor countries except Finland, Sweden and Australia
Modifiers	
+1	Elite Japanese naval air
+1	Defending interceptors
-1	British naval air
-1	Air units subject to a winter effect of 8 or more
-1	Air units in partial supply or subject to air oil effects

Construction

AAF cost three BRPs to construct. There is no limit to the number of AAF that may be built in a turn beyond force pool and UCL restrictions. Additional AAF can be added to a major power's force pool either by mobilization or production.

Summary

AAF are the backbone of your air force. They are used to gain air superiority over the battlefield and to threaten enemy naval forces who dare to operate near a coast. AAF are flexible in both attack and defense, but must be based carefully, as they are vulnerable to counterair attacks.

Naval Air Units



These units may only be built and employed by the U.S., Britain, Germany, Japan and Italy.

Basing (17.31)

Naval air squadrons (NAS) are the only aircraft that may base on aircraft carriers. They may base on land in the same manner as AAF, with three NAS being the equivalent of one AAF. In addition, a single NAS may base on a Pacific one hex island.

Range (17.32)

NAS have a range of three hexes, whether operating on land or from carriers, in both Europe and the Pacific. They may redeploy as air units or with their carrier.

Operations (17.33)

NAS come into their own operating over the sea and against naval targets:

17.33 OPERATIONS: Naval air units may conduct the following air operations:

- A. Counterair.
- B. Air cover (land-based naval air units only).
- C. Search during naval combat and modify submarine attacks.
- D. Attack enemy naval units at sea and in ports.
- E. Combat air patrol (carrier-based naval air units only).
- F. Ground support.

- G. Intercept enemy defensive air support.
- H. Provide defensive air support (land-based naval air units only).
- I. Intercept air transport operations (land-based naval air units only).
- J. Counter-intercept defending air which intercept air transports (land-based naval air units only).

It is important to note that when engaging in air combat with AAF or providing ground support or defensive air support, three NAS are equivalent to a single AAF. Note that certain operations can only be conducted by land-based NAS.

Air Nationality DRM

The combat strength of NAS is also determined by their Air Nationality DRM. British NAS have a reduced Air Nationality DRM (-1) compared to British AAF. Conversely, elite Japanese NAS have a +1 Air Nationality DRM, but elite Japanese NAS cannot be rebuilt and are replaced in the Japanese force pool by regular Japanese NAS when lost. In addition, once Japan has gone to war with the Western Allies, all NAS additions to the Japanese force pool are regular Japanese NAS.

Construction

NAS cost one BRP to build. The number of NAS which can be constructed in any turn is governed by the Naval Air Training rate for the major power concerned: (U.S.: 4; Japan: 3; Britain: 2; Germany: 1; Italy: 1; as increased by production). NAS force pools may be increased by either mobilization or production.

Summary

It is usually wise to avoid exposing concentrations of land-based NAS to enemy AAF, because of the limitation on the number of NAS which may be rebuilt each turn. An ever-increasing pile of unbuilt NAS is of no use. NAS are useful for providing a network of interception die roll modifiers in the Pacific to assist long range naval interceptions. The American production and mobilization of NAS should be planned carefully, in sync with the American Naval Air Training rate and carrier construction program. Ideally you will always have some NAS to build, so that your Naval Air Training capacity isn't wasted, but without having too many NAS unbuilt.



Kamikazes



Kamikazes are a special type of Japanese NAS on a one-way ticket. They function differently from normal Japanese NAS, as detailed below

Basing (17.461)

Kamikazes do not base on the mapboard. This means that they cannot be counteraired. They may only operate out of Japan.

Range (17.462)

Kamikazes have a range of four hexes from any air base in Japan.

Operations (17.463)

Kamikazes may only attack enemy naval units. They are limited to a maximum of 15 kamikazes in any one attack and may not combine with non-kamikaze land-based air units and may not be escorted by AAF or NAS.

Attacks

Kamikazes use the normal Japanese Air Nationality DRM when engaging in air combat, but receive an additional +1 modifier when attacking naval units and count as three attack squadrons each. If all available kamikazes attack in one turn, kamikaze

attacks in the next turn receive an additional +2 modifier, and so on.

Force Pool and Construction

Japan's initial kamikaze force pool is twice its Naval Air Training rate. If Japan uses all its kamikazes in a turn, its kamikaze force pool again expands by twice its Naval Air Training rate. As noted above, subsequent generations of kamikazes are also more effective when attacking enemy naval units. The catch is that, while kamikazes have the same construction cost as NAS (one BRP per squadron), by the time Japan has enough kamikazes to really make a difference, its construction limit and BRP problems make it very difficult to build them.

One way Japan can surmount this difficulty is to convert existing AAF or NAS to kamikazes. However, this is only possible if enough Japanese AAF and NAS survive counterair attacks from the usually massive American carrier forces.

Summary

Kamikazes can be very effective, depending on their targeting rolls, and can even thwart an American invasion of Japan and therefore prolong the war. The Japanese problem is that by the time kamikazes come into play, Japan's position is usually disintegrating.



Jets

Jets are souped up army air units, which can only be researched and produced by Germany, Japan, Russia, Britain and the U.S.

Basing (17.51)

Jets base in the same manner as army air units. They may not base on carriers.

Range (17.52)

The range of jets is determined by the research result for jets and may range from two to four hexes in Europe and one to three hexes in the Pacific.

Operations

Jets may not engage in combat with naval units, beyond escorting air attacks on naval units in port. Jets may also not provide ground support or provide defensive air support:

17.53 OPERATIONS: Jets may conduct the following air operations:

- A. Counterair.
- B. Escort air attacks on enemy naval units in port.
- C. Escort the bombing of enemy economic targets.
- D. Intercept enemy defensive air support.
- E. Escort defensive air support.
- F. Oppose enemy bombing.
- G. Intercept air transport operations.
- H. Counter-intercept defending air which intercept air transports.

Jets may also be used to intercept or provide air escort for strategic bombing up to their fairly restricted range, and may be used to defend against flying bombs.

Combat

In air combat each jet factor is equivalent to three AAF (or nine NAS). In addition, each jet factor present provides a +1/-1 modifier for air combat dice rolls. Jets can really provide some punch in air combat, although in a serious air battle which goes for several rounds, a single jet factor will likely be a casualty in the first round, leaving its weaker comrades in arms to fend for themselves.

Construction

Each jet factor costs three BRPs to construct. Jets require investment in research to be built, although no RPs need be invested in production to create jet factors (a successful research result itself does that). Germany may not invest in – or acquire – jets until 1943; Britain, the U.S., Russia and Japan must wait until 1944. The maximum number of jets that any nation may produce is 4. A maximum of one jet factor

may be added to a major power's force pool each turn.

Summary

Jets are extremely powerful in air combat, but in usually arrive too late and in too few numbers to significantly affect the outcome of the game. An alliance faction which has been able to achieve three or four air general research breakthroughs by the time it can invest RPs in jets may obtain enough jet factor to make a difference. Germany, because of its head start in jet research, is most likely to benefit from jets, especially in defending against Western Allied bombing. Jets are also useful to spearhead conventional AAF in aerial combat. Take care to avoid exposing jets needlessly to enemy counter-air attacks. Jets will always have construction priority over AAF. And remember ... jets are cool!



Air Transports

Air Transports are one factor air units used for logistical operations, including airdrops.

Basing

Air transports base in the same manner as AAF.

Range

Air transport units have a range of four hexes in Europe and three hexes in the Pacific. This may not be increased.

Operations (17.63)

The operations which may be conducted by air transports are listed in 17.63:

17.63 OPERATIONS: Air transport units may conduct the following air operations:

- A. Air supply.
- B. Air transport.
- C. Airdrops.
- D. Fly BRPs over the Hump to China.

Air supply in particular is a sometimes overlooked role for air transport units and one that can have a huge impact in some tactical situations. Air supply can not only allow an isolated unit to survive – it can also give it mobility to break an encirclement and restore a supply line. Russian air transports are particular effective in this role, provided Russia can obtain local air superiority despite being on the defensive.

Airdrops are tied to the Combat Training Level (CTL) of the unit being dropped – a CTL of two or more is required before airdrops are allowed.

Combat

Not surprisingly, air transports are highly vulnerable to both counterair attacks and interception during missions. They do not count as a factor when determining air combat strengths. It is very risky to use air transports without a clear air superiority.

Construction

Each air transport factor costs three BRPs to build. Some nations start with air transports built or in their force pool. Additional air transport units may be produced, but they are expensive – three RPs each, absent any air general research breakthroughs.

Summary

Air transports are possibly the most overlooked and poorly handled air units in the game. Air transports should be based carefully, both to avoid counterair attacks and to give them maximum versatility in threatening air supply, air transports and airdrops.



Strategic Bombers

Strategic bombers enable a player to bomb the enemy’s key economic areas and other installations such as oil centers and plants, rocket bases, mapboard boxes and even naval units in shipyards. Only the Western Allies, Germany, Russia and Japan may construct strategic bombers.

Basing (17.71)

Strategic Bombers may base only in SW boxes, and must commit to a specific front in the theater in which they are operating.

Range (17.72)

Strategic bombing ranges are traced from a friendly operational air base on the front in which the bombers are based. The range is dependent on the Air Range research level achieved.

There are summarized in the Air Range Effects Table, which is found in the player aids. As can be seen, with no Air Range research result, strategic bombers have the same range as AAF (four hexes in Europe, three hexes in the Pacific). The first Air Range research result increases the range of strategic bombers to eight hexes in Europe and six hexes in the Pacific; the second Air Range research result increases the range to 16 hexes in Europe and 12 hexes in the Pacific, and so on.

Jumping ahead a bit, the range of interceptors, which are useful for escort strategic bombers, is also increased by Air Range research, giving this project an even higher priority.

Air Range Effects Table

Air range results	Europe		Pacific		SW/ raiders
	Bombers	Inter.	Bombers	Inter.	
0	4	4	3	3	-
1	8	4	6	3	+/-1
2	16	8	12	6	+/-2
3	24	12	18	9	+/-3

“Air range results” refer to the number of “10+” air range research results achieved. Each major power coalition may increase its air range no more than three times per game.

The maximum ranges in hexes for strategic bombers and escorting interceptors for each theater are given for each level of air range achieved. Strategic bombers and escorting interceptors begin the game with a range of four hexes in Europe and three hexes in the Pacific.

For every eight (Europe) or four (Pacific) hexes of excess bombing range, friendly bomber SW combat dice rolls receive a favorable +/-1 DRM. This modifier is limited by the number of strategic bomber research results achieved by the bombing alliance faction (the initial Western Allies strategic bombing result counts towards this limit).

Operations (17.73)

One limitation on strategic bombers is that the only operation they may carry is ... strategic bombing. But they’re sometimes very good at it!

Combat

When strategic bombers are intercepted en route to their targets their strength in air combat is the same as for AAF of that nationality.

Bombing Effectiveness

The effectiveness of strategic bombers depends on both the number of Strategic Bomber research results and the maximum air range (based on the number of Air Range research results) compared to the actual range to the target.

Each additional Strategic Bomber research result beyond the first provides a favorable +/-1 DRM to the SW combat dice roll; every eight (Europe) or four (Pacific) hexes of excess bombing range also generates a favorable +/-1 DRM to the SW combat dice roll. This latter modifier is limited by the number of Strategic Bomber research results achieved by the bombing alliance faction (the initial Western Allies strategic bombing result counts towards this limit). This restrictions prevents Japan from annihilating China by bombing with AAF and two Air Range research results.

Strategic bombers may be accompanied both by interceptors and by AAF acting as both bombers and escorts. AAF is limited to a range of four hexes, however.

A detailed description of bombing effects lies outside the scope of this article. It is worth noting, though, that favorable strategic bombing modifiers increase the effectiveness of bombers, and if at least one strategic bomber factor survives air combat and the defender's SW combat dice roll, an atomic attack may be made on the target.

Construction

Each strategic bomber factor costs three BRPs to build. Strategic bombers force pools are increased through production with an incrementally increasing cost. Western Allied strategic bombers constructed in Europe may be produced starting in 1940 and must be split equally between the U.S. and Britain. American Pacific strategic bomber production is a separate U.S. project and production may only start in 1944.

Summary

A concerted bombing campaign will not only drain BRPs from your opponent and reduce his construction limit for the following turn, but will likely also tie down significant portions of his air force trying to defensive duties. Strategic bombers are also the most common method of delivery for atomic weapons.



Interceptors

Interceptors may engage in air combat in support of or in defense against strategic bombing. Only the Western Allies, Germany, Russia and Japan may construct interceptors.

Basing (17.81)

Interceptors base in SW boxes, in the same manner as strategic bombers.

Range (17.82)

Interceptor ranges start at four European and three Pacific hexes, with increases from Air Range research. Unlike AAF, interceptors may not be counteraired.

Operations (17.83)

As noted above, interceptors are limited in what they may do:

17.83 OPERATIONS: Interceptors may either escort bombing missions or oppose enemy bombing and flying bomb attacks.

However, because interceptors don't base on the mapboard, they are more flexible than AAF in carrying out these specialized functions.

Combat

In addition to their flexibility, interceptors have the added advantage of having an Air Nationality DRM one higher than AAF of the same nationality. Ideally, interceptors defending against strategic bombing won't be encumbered by AAF, and therefore will be able to take advantage of this higher Air Nationality DRM.

Since radar research results also increase the effectiveness of air units defending against bombing, interceptors defending against strategic bombing with a radar result would get a favorable +/-2 modifier in air combat, all other things being equal.

Construction

Each interceptor factor costs three BRPs to build. Interceptor force pools are increased by production with an incrementally increasing cost.

Summary

Interceptors are excellent at doing what they do – defending against or escorting strategic bombers.

VICTORY THROUGH GROUND SUPPORT

Making the Most of Your Air Superiority

by Greg Wilson

Ground support is often essential and can be decisive in A WORLD AT WAR. Without ground support, the Germans would not be able conduct overruns and defeat Poland quickly. Even the battle for France would be only slightly improved over World War I, as armor cannot usually create breakthroughs without ground support.

In a nutshell, ground support is the second major component of the classic combined arms that made up the Germans revolutionary blitzkrieg tactics. No ground support, no *Blitzkrieg!*

Later, when the Allied air preponderance overwhelms the Axis forces, it is again ground support that makes possible the eventual Allied victory.



Figure 1

Allied ground support begins to overwhelm the Reich

The essential truth is that in A WORLD AT WAR, with the possible exception of seaborne invasions, where shore bombardment can substitute for ground support, offensive ground operations require air superiority, so that ground support can be flown. Without ground support, the best the attacker can usually do is 1:1 attacks, and every A WORLD AT WAR player knows what those can lead to...

One hexside in contact plus lots of air

Ground support in general provides a hammer behind the “spike”, the ground units. The ground attack can be spread over multiple hexes or just focused on one critical hex. Ground support is limited to the 3:1 ratio of air to attacking ground factors. All of the air within reach of any attacked ground unit may be applied as ground support to the entire attack, up to the 3:1 ratio. Gibraltar provides an example of a situation where you have only one ground hexside from which to attack, so you must provide a large amount of ground support against Gibraltar in order to get decent attack odds.



Figure 2

A bold Axis attack on Gibraltar at 28-24, for 1:1 odds. An “Ex” will do!

Maintaining the 3:1 air/ground ratio

At the end of combat the attacker is allowed to choose which units to lose. He must maintain a ratio of at least one ground factor for each three factors of ground support used. If no ground units remain then all air would also be lost (18.556).

In many situations, this rule has little effect, but sometimes the attacker must keep it in mind.



Figure 3

Should the Madrid AAF help the German 1-3 infantry unit attack the partisan?

In Figure 3 the German player is considering attacking the Spanish partisan in Spain at 2:1 odds by using his Madrid AAF. However, this would probably be a mistake because if any losses occur he would be forced to take the expensive air unit as a casualty. Taking the less expensive 1-3 infantry unit as a loss would also cost Germany its AAF. It is better to either ignore the partisan or just conduct a 1:1 attack.



NAS Ground Support

Carrier-based NAS can provide very useful ground support for Invasions and even for inland attacks. Keep in mind that carrier-based NAS cannot fly ground support for exploitation attacks (18.5522), although land-based NAS can.

With some planning, it is often possible to get

around this restriction. In Figure 4, the British player sees he is just strong enough to attempt a 2.5:1 attack on Casino, but he needs additional ground support to attack Rome and knock Italy out of the war. The 12 NAS based on the British CVLs make the difference.



Figure 4

12 NAS based in Cagliari provide ground support for the British 2-5 armor unit's exploitation attack on Rome

The British carriers change base to Cagliari during the Allied movement phase and the 12 NAS base there. These NAS are now allowed to provide ground support from Cagliari for the exploitation attack on Rome.

While on the topic of naval air ground support, do not forget about using escort carriers in this role during seaborne invasions. Each CVE factor provides a one factor of ground support. CVEs can free up quite a few NAS on much more expensive fleet carriers, which might be busy doing other things (like sinking the *Yamato*).

Ground support in multiple hex battles

A situation might come up where you want to attack several hexes from one hex containing ground troops. In this case your ground support only need reach one of the target hexes, as stated in the last sentence of 18.551:

18.551 ... If a ground attack against more than one enemy hex is being conducted, the attacker may add ground support to his attack if his air units are able to reach any one of the attacked hexes.

Often this won't matter, because the ground support can be flown to all of the attacked units, but Figure 5 illustrates that in more complex situations, such subtleties can make all the difference.

In Figure 5, the German player wishes to create a breakthrough in the hex marked by a blue circle. His problem is that that hex lies out of range of the German air and the Russians have three AAF in range of the hex. The best the Germans can do is a straight 1:1 attack where an exchange is not going to take the hex.



Figure 5

The blue circle indicates the desired breakthrough hex.

The solution for the German player is to include the Russian 1-3 infantry unit in the hex to the southwest in the attack. This unit is within four hexes of the German AAF, so all 15 German AAF may fly ground support there.



Figure 6

German ground support and Russian defensive air support is flown in the adjacent hex

Even with the Russian defensive air support, the German odds are 6 ground factors (a 4-6 and a 2-6

armor unit) plus 15 AAF in ground support vs. 4 defending ground factors plus 3 defensive air support = 21:7 or 3:1 odds.



Figure 7

The result of the 3:1 attack on the breakthrough hex.

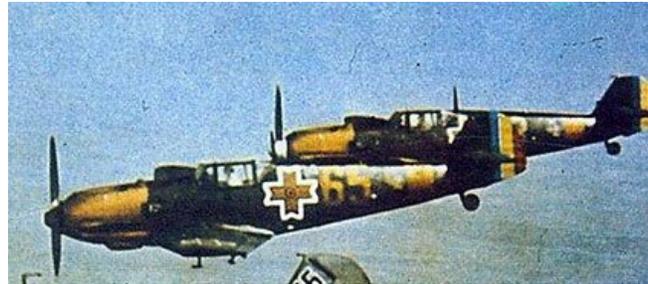
The Germans have a choice of hexes to occupy after they win the 3:1 attack. They choose to place their exploiting armor on the original blue-circled hex, and from there they exploited to capture Stalingrad.

Ground support sacrifice

Sometimes one needs to get a little tricky when flying ground support. You can flying ground support to a hex you do not intend to attack in order to draw your opponent's attention and his defensive air support to that hex. The air units committed to ground support will die, but if the ruse works then their sacrifice might well allow victory in another, more critical, hex.

Usually this tactic comes into play when opposing air forces hold approximate parity over the critical battle zone, and defensive air support may be effective in stopping a critical low-odds offensive, as in Russia in 1942-43).

Another version of this tactic involves flying ground support to one of two enemy hexes to be attacked. This not only allows air units to participate in attacks which would otherwise be out of range, as described above, but it may also camouflage the attacker's true intentions. Misleading the enemy is almost always worth some extra effort.



The Regia Aeronautica in Russia

During the opening phase of Barbarossa, and arguably through much of the Russian campaign, Italian AAF and at least one Italian airbase counter should deploy against Russia. The Italian air and airbase(s) give the Axis player maximum flexibility on getting ground support to where it is needed in city sparse Russia. The applicable rules, which some players overlook, are:

18.142 AIRBASE PLACEMENT: Once play begins, major powers may place airbases on the mapboard as follows:

...

B. Each turn:

- Germany may place one airbase during its movement phase and a second airbase during its unit construction or redeployment phase (European theater only).
- Italy may place one airbase during its movement phase, unit construction or redeployment phase (European theater only).

18.146 Only air units belonging to the placing major power may use an airbase in the phase in which it is placed....

It is the first sentence in 18.146 that is sometimes missed – only *Italian* AAF may change base to a newly-placed Italian airbase.

Since the concentration of air power in a critical sector can be decisive in laying the foundation for a key breakthrough and subsequent exploitation, having five Italian AAF in Russia permits the Axis to place both a German and an Italian airbase during the movement phase, then base five German and five Italian AAF (each on their own newly-placed airbase) in the critical sector.

An extra few factors of ground support in a critical battle can decide the Russian campaign. You need air against Malta? Then send some German air units there – but keep the Italian air in Russia!!

Use of minor air for ground support

When there is a threat of enemy defensive air support upsetting the odds of an attack, use your minor and Italian air to provide ground support. Meanwhile your German AAF, with its higher Air Nationality DRM, will intercept Allied defensive air support more effectively.

A word of warning, however. The lower Combat Training Level (CTL) of the minor and Italian air units (yes – CTL is distinct from Air Nationality DRM), mean that without a CTL increase from research, your minor and Italian air will not be able to fight a second round if needed.

This doesn't mean that air units with a lower CTL cannot be used, but the attacker must take the possibility of an "a" result into account, when such air units will have to be taken as casualties. It can be especially embarrassing to have an attack reduced to risky 1:1 odds in the second round because the combat factors of the higher-CTL ground units don't quite mesh with the lower-CTL air units used in an attack.

Conclusion

Ground support has a key advantage over defensive air support in that air units providing ground support may change base before ground combat is initiated. This allows the attacker to concentrate his air to achieve local air superiority, even when the defender may actually have just as much or more air than the attacker.

To achieve this concentration of force it is important that one places their air (and airbases) so that it is capable of reaching the key battle hexes.

Proper and flexible use of ground support is critical for the both sides in A WORLD AT WAR. If ground support is not properly leveraged, the chances of victory are largely diminished.