

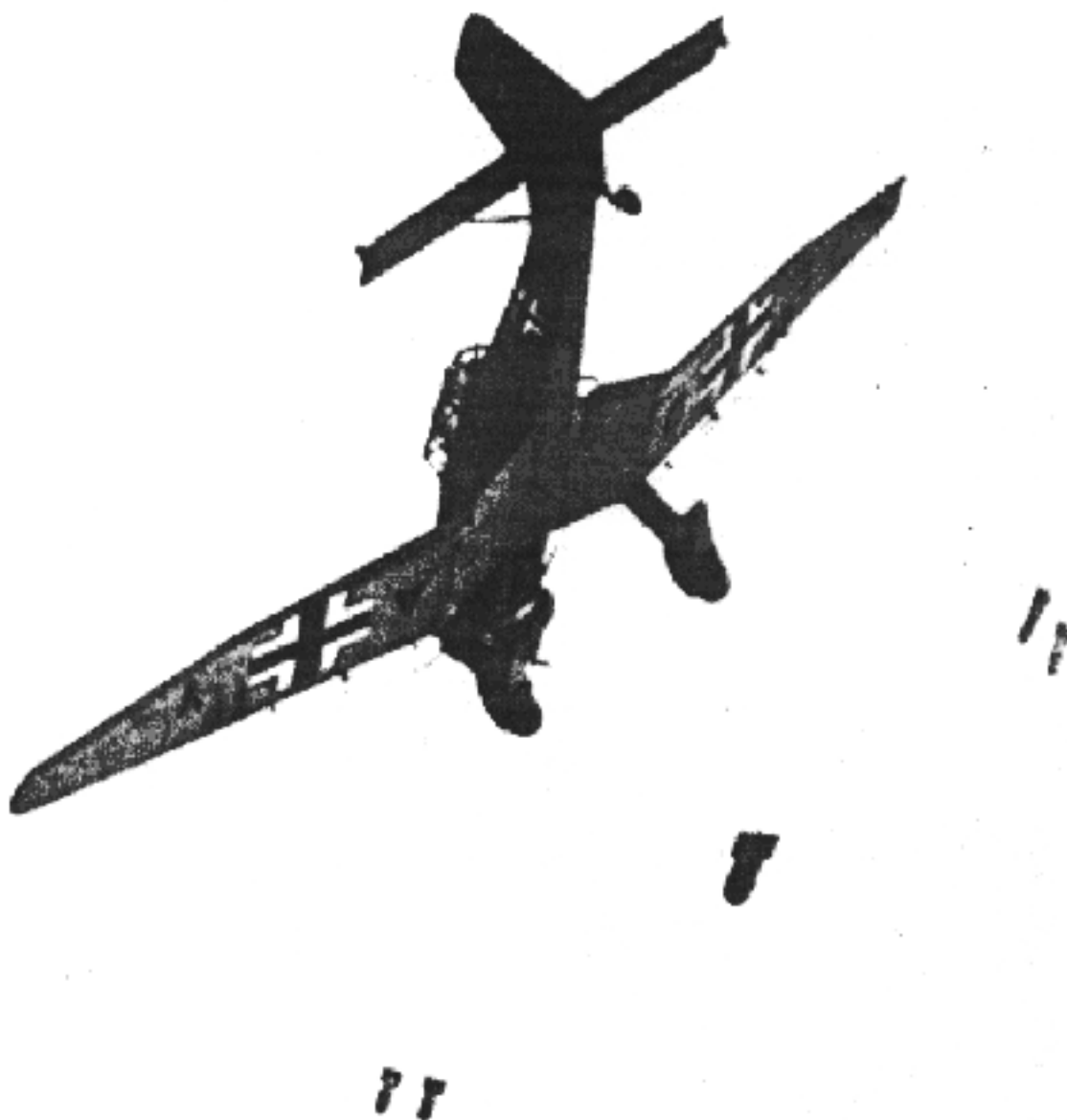
VIEW FROM THE TRENCHES

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AN AIRPOWER SPECIAL EDITION

BIRDS OF PREY - Flying lessons for ground pounders

AIRCRAFT COUNTERS - Unmounted aircraft counters

DOGFIGHTING TACTICS FOR INFANTRYMEN - Aerial combat advice

GROUND ATTACK AIRCRAFT - Aircraft notes

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PREP FIRE

Hello and welcome this special issue of *View From The Trenches*.

I'm doing this special edition to celebrate the fact that I am attending ASLOK and INTENSIVE FIRE this October. It also gives me a chance to reprint the colour aircraft counters that were first published in the excellent French 'zine *Le Franc-Tireur* without hurting the *VFTT* coffers too much! Thanks to *LFT* editor Laurent Closier and artist Olivier Morizot for allowing me to reprint them.

For those of you who know bugger all about aircraft (like me!) I've also included a few brief notes about each of the aircraft printed on the sheet.

In keeping with the aerial theme there is also a reprint of an article from the now defunct French 'zine *Tactiques* which offers a beginners guide to the air support rules. Noted Swedish *ASLer* Patrick Manlig also offers some advice on how to use airpower effectively. I'd like to thank Alain Chabot for his sterling work in translating both these articles.

Until next time, roll low and prosper.

Pete Phillipps

Double 1. My last, best hope for victory.

EMOTICONS

With the growth of the InterNet, emoticons have originated to allow people to show expressions in text. I find these very useful for the printed word in general, so you'll see plenty of them in *View From the Trenches*.

An emoticon is created with keyboard characters and read with the head tilted to the left. Some typical emoticons are:

:-) humour or smiley
;-) winking
:~> devious smile
<g> grin
:-(sad
:-o shocked or surprised
#-(hung-over

COVER: A German stuka in action early in the war.

VIEW FROM THE TRENCHES is the bi-monthly British *ASL* journal. All comments are welcome. Even better, contribute. Write an article. Design a scenario. Share your *ASL* experiences with others. *VFTT* allows you to communicate with other *ASLers*. Don't be a silent voice.

Issue 23 will be out in January.

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BIRDS OF PREY

Beware Vultures Circling Overhead

Laurent CLOSIER, Laurent FOREST

One of the features of land combat during WW2 was the fact that control of the skies was held by both sides, one after the other. With the Luftwaffe having the upper hand during the first three years of the conflict, German generals were able to successfully conduct blitzkrieg warfare on various fronts (Poland, Low Countries, France, USSR). However, the Battle of Britain and weaknesses in the Nazi doctrine of air warfare had combined to switch the control of the air to the Allies by late 1942. The latter, especially the US, were then able to put their industrial base at the service of this new tactical weapon in order to create an awesome machinery of destruction, which pushed the German troops all the way from the Normandy bocage to Berlin.

The rules for Air Support (E7; Errata 87, 89 & 90 ; Annual ASL 90 & 91) provide a simplified (see footnote E18) and somewhat hodgepodge, simulation of the actions of the Allied and Axis air arms on the battlefield. In this article, we will attempt to make these rules easier to understand for the novice. The following assumptions are made throughout:

- only one side has air support
- DYO (E7.1) and campaign (RB, KGP, SP) rules are not presented.

PRESENTATION

Air Support is only available during Daytime, when there is no Overcast and if the Target is not in Mist (E7.2). It is then represented by one or several "aircraft" counters playing the part of some Stuka, Typhoon, Sturmovik or P47. The information on the counters is explained in the following illustration:

DRM for Light AA fire against the aircraft (E7.511)

Aircraft type 9DB or FB

Years of usage:
1939: from 39 to 41
1942: from 42 to 43
1944: from 44 to 45

Aircraft Morale Level for the Sighting TC (E7.3)

ROF for Aerial Combat (E7.222)

HE Bomb size (E7.42)

MG FP (E7.41)

This information will be used in sequence, depending on the type of attack. As soon as a plane has dropped its bombs the counter is inverted to indicate its new

state (note that there is no HE bomb value and that the aerial combat ROF is increased by 1 [EXC: Stuka])

There are three types of Air Support missions:

- Strafing (E7.401),
- Point Attack (E7.402 ; E7.403),
- Bombs (E7.42).

They all are subjected to the same sequence of events as ground attacks, i.e. movement - defensive fire - advancing fire. What tends to disorient the novice is the shift in time of those activities. In effect, the movement and the advancing fire of aircraft are done by the DEFENDER during the ATTACKER's MPh, and defensive fire is done by the ATTACKER during his own MP. These little mental gymnastics are thankfully easy to learn. Furthermore, only one side (Player A in our examples) has Air Support in most published scenarios, which simplifies the sequence of play (see Figure 1).

Figure 1: Classic Sequence of Play

Player A's Turn
RPh It is assumed that Player A has just made a successful Air Support entry dr or that a SSR indicates the arrival of the Air Support this turn.
MPh Player A places his "aircraft" counter(s) in waiting on the edge of the mapboard
DFPh Player B may resolve his Heavy AA fire with any gun that set up and which is not marked with a First/Final Fire counter.

Player B's Turn
PFPh Player B may again conduct Heavy AA fire (place a Prep Fire marker on the weapons fired)
MPh
1 Player A designates, whenever he wants, which aircraft he will activate and makes a Sighting TC.
2 Player B resolves his light AA fire against this aircraft [EXC: a Stuka making a Point Attack conducts his first attack before being subject to Light AA fire].
3 Player A makes his attack and then he moves his aircraft to the hex from which the next attack will come from.
DFPh If Player A has not used all his aircraft during the MPh, he may complete his Aerial attacks by following the same procedure.
During Player B's MPh/DFPh, steps 1-3 are only undertaken if the Sighting TC has been successful, and are repeated until Player A has completed his attack with the aircraft he has chosen. He then designates, after Player B has expended = 1 MF/MP with any unit if he so desires, a new aircraft and starts again at step 1. Thus, each Air Support attack may be

BASIC FLYING LESSONS

Entry (E7.2-21)

Generally, the number of planes, whether they carry bombs, and their turn of entry are determined as follows:

- the number of planes is equal to a dr divided by 2 (FRU), which means 1 to 3 planes;

• all the planes carry bombs if another dr is = a number given in E7.1 which is dependent on the scenario date and the nationality in question E7.1; otherwise, none of the planes carry bombs;

• the turn of entry is determined as follows: as long as the planes have not yet entered play, the player makes a dr during each of his RPhs; the planes enter when this dr is < the current turn number.

However, these parameters are frequently specified in whole or on part in the SSR.

Example: "SSR2: the Americans receive Air Support on Turn 2 in the form of 2 FB with bombs."

Movement

Aircraft counters inherently have unlimited movement capacity. They can enter any hex; neither terrain nor game pieces have any influence on their placement/movement. An aircraft only leaves the map if:

- it is Recalled (E7.24),
- it is eliminated (E7.23),
- it voluntarily exits during an enemy

MPh (unless engaged in an Aerial Melee (E7.22)).

Leaving the map is final.

Aerial Range (E.5)

To compute the range of an attack by/ against an aircraft, the number of hexes between the two units is multiplied by 2. PBF/TPBF (including TH Cases E and L) are NA, but FP is divided by 2 in the case of a Long Range attack against an aircraft (the MG FP of an aircraft is never modified by range).

Table 2 : Armament Characteristics (E7.41 ; E7.42)

Table	IFT (A7.)		AP TK (C7.31)		IFT (A7.)		HE TK (C7.34)	
Attack	MG FP vs. Inf.		MG TK# vs. * & Beached LC		MG TK# vs. non Beached LC		MG Base TK# vs. AFV/LC	
Type	FB	DB	FB	DB	FB	DB	FB	DB
30	6	4	6	5	4	4	20	30
42	8	4	7	5	5	4	24	36
44	12	-	8	-	6	-	30	16

Aerial LOS (E7.25)

An aircraft has LOS to any non-hidden unit that is not in a Location such as:

- an underground Location :
 - sewer (B8),
 - tunnel (B8.5),
 - Culvert (O7),
 - Cave Complex (G11.2),
- a completely blind hex (see below).

An aircraft can see INTO a depression (B19). LOS reciprocity is always the case (Cf. Light AA fire -E7.51-).

Blind hex

A unit completely surrounded by obstacles at least one level higher than its Location is in a completely blind hex. (EX: 24P1, 2K6 and 10AA2 when in season).

A level 1 obstacle only creates one blind hex for an aircraft.

Half-level obstacles (hedge, wall, roadblock, dune crest) do not block aerial LOS and give no TEM to target units (E7.4).

Bocage creates a blind hex (the one formed by the bocage hexside).

LOS HINDRANCE

Mist (E3.32)

A LV DRM applies to any fire to/from an aircraft at a range of more than 3 hexes, at a rate of +1 per multiple of 3 hexes (FRU) beyond the 3 first hexes (EX: mist creates a +1 DRM if the range to the target is 4-6 hexes, +2 if it is 7-9 hexes, +3 if it is 10-12 hexes, etc.).

N.B.: all the value listed above take LOS range rules into account.

SMOKE (E.6)

Level 2 SMOKE is a Hindrance (+X) for aerial attacks /AA fire/Sighting TC only if it is in the ground unit's hex.

Level 4 SMOKE (EX: WP, blaze, burning wreck) is a Hindrance (+X) of the same kind if it is in the ground unit's hex or if it is in a hex adjacent to that unit's hex and is part of the LOS from/to the aircraft.

SMOKE in the aircraft's hex has no effect.

+X:	SMOKE Hindrance DRM as per E.6
+3	Target is in building/woods/rubble/orchard (in season)
+1	Target is in brush, grain, marsh, crag, graveyard
+1	Target is with four hexes of non-HIP vehicle/MMC friendly to and in the LOS of the aircraft
+1	Mist/Dust/Heat-Haze (regardless of Aerial Range)
-1	Target is vehicular, or boat in water
-1	Target has entered a new hex/used VBM/been in Motion during this Player Turn *
-1	Target is part of a Convoy or Column
-1	Target hex has been attacked by a friendly plane during this Player Turn
-2	Target is not entirely concealed/HIP

* Dashing or movement totally inside a building/enclosed box is not applicable

Heat-haze (F11.622)

Heat-haze creates a +1 DLV DRM for any Ground Support attack by an aircraft, regardless of its range. Intense heat-haze increase this DRM to +2. In both cases, a player with Air Support must add a +1 DRM to all his Sighting TC, regardless of its range.

Heat-haze has no effect on AA fire.

Dust (F11.793)

Dust of all types/levels causes a non-cumulative +1 DRM to Sighting TC, but except where otherwise stipulated, Dust of all types/levels adds cumulative DRM to fire from/to aircraft [EXC : aerial combat (E7.22); Heavy AA fire (E7.52)].

Cave (G11.86)

A non hidden Cave is treated like a building for the purpose of Sighting TC. (See Table 1). Any unit (even friendly) in the Cave Entrance hex is attacked at the same time as the Cave with the same original IFT/TH DR as modified for each individual unit.

A Ground Support attack against a Cliff Cave/its content is subject to a supplementary TH/IFT (bomb/MG) DRM equal to the difference of level between the Cave and its Entrance hex1.

Concealment

Aircraft do not affect Concealment rules (A12)2. However, a concealed stack moving in OG is not considered concealed for an aircraft (see Table 1) and the aircraft player can inspect it provided he makes a Sighting TC. If it is a Dummy stack, the aircraft can make another Sighting TC, but, in any case, it will be subject to Light AA fire for its first TC.

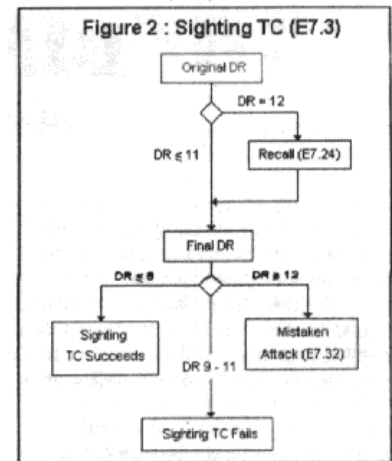
Concealment affects Sighting TC (Table 1), TH DR (Table 3) and IFT FP (see A12.13).

FINDING THE ENEMY

Sighting TC (E7.3)

Before it can making the desired attack against the chosen target, an aircraft must make a Sighting TC which determines its actions for the current turn. To this effect, it is given a ML of 8 (See. § Presentation). The Sighting TC DRM (See Table 1) are based on the unit in the initial target hex which is the most favorable for the aircraft. Once this unit has been sighted, all the units in that same hex are also sighted and further Sighting TC for the other target hexes of the same Ground Support attack are unnecessary.

Figure 2 gives the Sighting results as



a function of the Sighting TC DR.

Successful Sighting

The aircraft has sighted its initial target and readies itself for the start of its Ground Support attack (E7.4).

Unsuccessful Sighting

The aircraft cannot make a Ground Support attack nor be the target of defensive AA fire. The counter is placed on one edge of the map and will not be on action until the next game turn.

Recall (E7.24; E7.31)

Following a Sighting, the aircraft may be called back to its airbase (See. footnote E19), in which case it leaves the playing area at the end of the DFPh (after resolving any eventual attack, even a Mistaken Attack). It is not counted towards Casualty Victory Points Conditions.

Mistaken Attack (E7.32)

A grave Sighting error may cause an aircraft to attack its own side. It is then temporarily controlled by the enemy. The ATTACKER may move it immediately [EXC : he may not exit off the mapboard] to attack (with no further Sighting TC) the non Concealed DEFENDER unit which is the closest (in hexes) from the initial target unit3 and is in the LOS of the aircraft (See aerial LOS). The Attacker chooses the type of attack which the aircraft will make during that turn.

Placement in attack position

An aircraft starting an attack must be placed 4 hexes from the initial target hex and along the same Hex Grain [EXC : Point Attack by a DB (E7.403)]. If there is no LOS to that target hex, the aircraft must be moved to another attack hex. The DEFENDER may add a board (in order to enlarge the playing

area) if the placement of his aircraft requires it.

MISSIONS

Aircraft attack individually (FG NA), do not have ROF [EXC : aerial combat] but a target can be attacked by many aircraft.

Residual FP is created in the target hex.

Aircraft do not Cower.

Aircraft do not Interdict.

An AFV which is the target of a successful Sighting TC may not change its BU/CE status before the first attack following this TC is resolved (D5.33). Afterwards, it may do so at its convenience. Other vehicles in the Strafing line may also change their BU/CE status but must do so before their hex become the target hex for the attack.

Strafing (E7.401)

Strafing proceeds as follows:

1) Light AA fire.

2) MG attack against all the units in the target hex (at a 4 hex aerial range, i.e. in the 7-12 column of the TH table).

3) Movement of the aircraft one hex in the direction of the initial target hex.

These actions are repeated until:

- player A suspends his Strafing Run, or
- the aircraft is destroyed/forced to leave the combat zone (E7.511), or
- the aircraft is moved to the initial target hex (where it possibly receives defensive AA fire).

A Strafing attack is thus an attack of = 4 consecutive hexes in the same Hex Grain as the aircraft.

Once it has reached the initial target hex, the aircraft can no longer attack but it is subject to defensive fire. The Strafing phase ends as follows:

- 4) Movement of the aircraft one hex in the same Hex Grain toward the final hex,
- 5) Light AA fire.

And this until the aircraft reaches its final target hex where to possibly receive light AA fire. The aircraft counter is then moved to a mapboard edge where it stays until a new attack.

Point Attack (E7.402)

A Point Attack concentrates all its Firepower on one target.

A Point Attack proceeds as follows:

- 1) Light AA fire.
- 2) MG attack against all the units in the target hex (at a 4 hex aerial range, 7-12 column of the TH table).
- 3) Movement of the aircraft one hex in the direction of the initial target hex.

J. Moving/Motion Vehicle or Dashing Infantry (C6.1)	+2
J3. FFNAM (Case J is NA) (C6.13)	-1
K. TEMO (Case J is NA) (C6.14)	-1
K. vs. Concealed Target/HIP (C6.2)	+2
L. Target using Horizontal Movement (at Case J is NA) (C6.5)	-2
P. Target Size Modifier	-2 +2
Q. TEM (C6.6)	+x
R. LOS Hindrance (C6.9)	+y
Overstacked Hex (A5.131 : A5.132), per squad/ Vehicle (FRU/special)	-1
Target is Motorcycle	-1
Target is Cavalry	-2

Rear Target Facing (C7.21)	+1
Aerial Advantage (C7.22)	+1 (+2 if OT/AFV)
Aerial AF of AFV	
AF	0 1 2 3 4 6 8 11
Aerial AF	0 0 1 2 3 3 4 4

4) Light AA fire.

5) Second MG attack on the units in the target hex (at a 3 hex aerial range, 0-6 column of the TH table).

After its second (and last) attack, the aircraft must continue on its path, one hex at a time to receive all possible light AA fire, and this, until it finds itself in the target hex (see points 4 and 5 of Strafing)

N.B.: at the conclusion of his first attack, player A must decide whether he is conducting a Strafing or Point Attack (E7.4).

Bombing (E7.42)

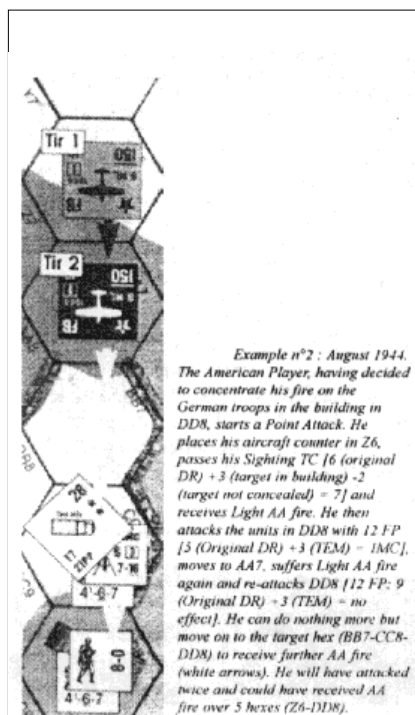
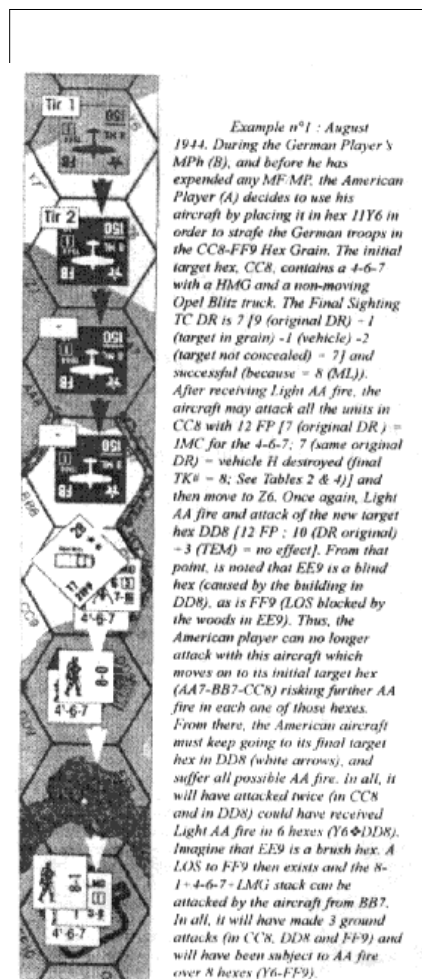
A bombing attack is not an isolated action. It takes place during a Strafing or a Point Attack, against the same hex, as a complement (or not) of the MG FP and only if the aircraft is armed with bombs (See. § Presentation). If the player decides on a combined attack (MG then bombs), he must announce it before any DR is made and resolve it in that order (MG-bombs). Once the bomb attack has been resolved, the aircraft may not go on with its Strafing; the bomb target hex becomes the final target hex (See point 4 of Strafing).

ARMAMENT

Ground attack aircraft armament evolved throughout the war. The great variety of equipment (machine guns, anti-tank guns, rockets, bombs of various size) is not reflected within the scope of the rules, (See footnote E18). All this equipment is portrayed as a MG and a HE bomb with a FP varying according to the aircraft type and model (See. § Presentation & Table 2). To determine the possible effects of an attack on SW/Gun present in the target hex, see A9.74 [EXC: napalm bombs (G17.41)].

MG (E7.41)

On an Original DR of 12 (IFT or TH), the aircraft's MG malfunctions (place a "MG disabled" marker on the aircraft counter).



Unarmored target

The IFT is used normally with the aircraft's MG FP. All the IFT DRM apply to the Strafing/Point Attack DR. All the units in the target hex [EXC: units out of LOS; See aerial LOS] are subjected to the attack and they use the same DR on the IFT. All the movement DRM (FFMO, FFNAM, etc.) apply to those units. If the target hex is a building, each Location (including the rooftop) in the LOS of the aircraft is attacked with the same DR on the IFT.

Armored target/AFV (A9.6)

TH Table C3 (black numbers) is used, with the Vehicle target type and a variable aerial range. All the aerial attack DRM (C6) apply to the result of the TH DR (See Table 3). If a Hit is obtained, the basic TK# is modified by the aerial AF of the AFV; Aerial Advantage and Rear Target facing apply (See Table 4). Cases C (CH) and D (range) are ignored. Note that the "MG column" of the AFV Destruction Table (C7.7) is used to resolve the attack, not the "Direct Fire" column.

Mixed targets

If the target hex contains AFV's and unarmored targets, the same original DR is used both for the TH against the AFV and the IFT against the unarmored targets. (See above).

Example n°3 : August 1944. Before any German movement, the American Player decides to make a Point Attack on a BU and Moving PzVG (VCA & TCA: J2-12) carrying a 4-6-7 squad as Rider. He places his aircraft in 17 and makes a successful Sighting TC [12 (original DR) -1 (vehicle) -1 (Motion target) -2 (target not concealed) = 8]. However, it is its last mission because it is under Recall (E7.24). Having received Light AA fire, it attacks the target hex 13 for the first time [5 (Original DR) -2 (Motion vehicle) -1 (Target Size) = 6 against a TH# = 9] and hits the PzVG but with no effect [6 (Basic TK#) -1 (Rear Facing) +1 (Aerial Advantage) -3 (Aerial AF) = 5 (Final TK#) against 9 (TK DR)]. The squad, on the other hand, is attacked on the IFT with the Original TH DR TH and 12 FP [5 (Original DR) +0 (Specific Collateral Attack DRM) -2(MC)]. The aircraft moves to 16 and, after further AA fire, renews its attack on the PzVG. It hits the tank again [9 (Original DR and HH) -2 (Motion vehicle) -1 (Target Size) = 10 against a TH# = 10] and inflicts damage [5 (Final TK#) against 2 (TK DR)]. The PzVG catches fire (See Table 4) and the PRC 4-6-7 squad is eliminated! Our ace pilot still must continue his movement until 13 for possible AA fire.

Landing Craft (LC; G12.61; G12.66)

A MG aerial attack against a LC always treats is as unarmored. It is resolved

on the "HVehicle" line of the IFT. The MG FP is divided by 2 if the LC is not Beached (See Tables 2 and 5).

HE Bombs

A bomb attack that misses its target has no effect on the other units in the same hex.

Unarmored target

The aircraft must get a hit on the TH table against an Infantry or Vehicle target, using all the relevant aerial attack DRM's (See Table 3). The attack is then resolved on the IFT (with the bomb HE FP; See Table 2). If the target hex is a building, all the units in the LOS of the aircraft are attacked with the same original DR on the IFT.

Armored target/AFV

As was the case above, the aircraft must get a hit on the TH table against a Vehicle target before it can resolve the attack on the HE TK (See Table 2). If the Final TH DR is = half the Basic TH# 4, a direct hit is obtained and the attack is resolved with the bomb's Basic HE TK# (See Table 4). If, on the other hand, the Final TH DR results in a hit, but is not = half the Basic TH# (i.e. a Near Miss), only half the bomb's Basic HE TK# is used. Furthermore, the FP of the attack is also divided by two in any Specific Collateral Attack against the AFV's vulnerable PRC. In both cases, TK modifiers are applied (See Table 4). Any other AFV present in the target hex is ignored [EXC: overstacking (A5.132)].

Example n°4 : Let us return to the preceding example. Wanting to increase his chances, the American player announces in 16 that he will make a bombing attack. The result of his MG fire makes the bombing useless but obligatory because it has been declared. Let us assume that the MG fire had not destroyed the AFV and let us resolve the bomb attack. Imagine a TH DR [7 (Original DR and HH) +2 (Motion vehicle) -1 (Target Size) = 8 against TH# = 10]. The PzVG is hit, but it is not a Direct Hit. The Final TK# = 7 [1/2x16 (HE Basic TK#) +1 (Rear Facing) +1 (Aerial Advantage) -3 (Aerial AF)] and the TK DR = 8. The PzVG is Immobilized and the 4-6-7 PRC squad is attacked with 15 FP [30/2 (Bomb FP HE) on the Incremental IFT] and 0 DRM.

Mixed targets

If the hex being bombed contains both unarmored units and AFV's, the same TH DR is used to see which target types are affected by the attack.. TH DRM's (See Table 3) are applied individually and all the units attacked by the bombing suffer the result of a single DR on the IFT/TK Table (See Tables 2 & 4).

Example n°5 : An American aircraft drops its bombs on an OG target hex 4 hexes away containing one non-moving Opel Blitz truck unloading one 4-6-8 squad, one 2-4-8 HS in a foxhole and one Motion SPW 231/1. The respective Final TH# to hit each of those targets are 9 [TH# = 9 with 0 DRM], 9 [TH# = 7 with a -2 DRM (FFMO+FFNAM)], 5 [TH# = 7 with a +2 DRM (TEM)] and 6 [TH# = 9 with a +3 DRM (+1 for Target Size, +2 for Motion)]. Assume a DR = 8; only the truck and the disembarking troops are hit (both on the IFT with one single DR).

TK DR/ vehicle	MG	HE	Bomb	Target	Type
	Vehicle	Vehicle	Vehicle	Area	
<= 1/2 Veh * / TK#	A b	C	odf	D	odf
< Veh * / TK#	A b	C	odf	-	odf
= Veh * / TK#	- b	-	odf	-	odf

Effects on LC : (DP = Damage Point)

- No DP inflicted *
- A. DP inflicted = * Vehicle KB # minus Final IFT DR. 12.61 *
- C. DP inflicted = Final TK# minus Final non-Dut TTK DR. 12.62 *
- D. DP inflicted = KIA# * 12.63 *

*Increase # of DP inflicted (even if zero) by one for CH followed by non-Dut Effects. DR = 12.64

Effects on the PRC of the LC

- b. All of LC's PRC are Vulnerable (12.71; 12.6712) [EXC: each Passenger AFV and its PRC/vehicle that is not treated as unarmored vs. that attack is Vulnerable only if that attack was made by an Aerial MG - in which case the Aerial MG's Original IFT DR, modified by -1 (or even -2 if the AFV is OT) is applied as a Final TK DR vs. the AFV. 12.67111]
- c. Vulnerable to hit is: all Passengers DR's IFT FP, and Final TK# vs. any Passenger AFV, are halved (FRU); 12.672
- d. Vulnerable to upper-structure is: LC's inherent crew, or one Passenger vehicle/vehicle/vehicle Target Size is 0, -1 or -2. (12.673)
- f. EXC: Bomb Near Miss causes no Collateral Attack. 12.672

Landing Craft (G12.62; G12.63; G12.66)

A bombing aerial attack against a LC always treats it as an armored target, with an AF of 0. All the TK# modifiers of Table 4 are applied (C7.21; C7.22). A Near Miss (E7.421) against a Vehicle Type target uses half the Final TK# and is treated as a HH (See Armored target /AFV above; Tables 2 & 5).

Area target type

An aircraft may bomb a hex as an Area Target type on the TH Table (C3) instead of as a Vehicle or Infantry target, but the attack will be resolved with only half the bomb's HE FP. All the ground units in the LOS of the aircraft are affected (if hit) and the effect is determined on the IFT with a single DR, modified for each unit. AFV's/LC follow the C1.55 procedure (IFT DRM for indirect fire against AFV).

Napalm bombs (G17.4)

The player (See Table 6) may opt to equip all his FB's with napalm bombs (See footnote G44) instead of HE bombs [EXC: if a SSR stipulates "HE bombs only"]. To obtain them, he must make a secret dr = 1 (with a -2 drm against the Japanese).

TH procedure

The same procedure is used as for HE bombs, with the following exceptions:

- Extra -1 TH DRM,
- target size TH DRM (C6.7) NA,
- CH NA.

Nationality	Dates	Theatre of Operations
American	7/44 - 45	PTO vs. Japanese
American	8/44 - 45	ETO vs. German
British	1945	PTO vs. Japanese
British	4-5/45	Italy vs. German
GMD Chinese	7/44 - 45	Burma
GMD Chinese	4-8/45	China

Resolution

Napalm bombs attacks are resolved as if they were 24 FP FT attacks on the IFT, with the following rules:

- “?”/HIP/Long Range : unchanged FP,
- Residual FP and Air Burst NA,
- all units⁵ (friendly and enemy) in the target hex and in the LOS of the aircraft are attack with a single DR on the IFT.

Finally, an attack against a Cave may affect the other Caves that are Accessible to it (See G11.6, G11.834, G11.86).

Side effects

A successful napalm attack has a consequence the simultaneous placement of a “Blaze” marker at the base level of the target hex (or of the entrance hex of a Cave; See G11.86) and of a “+3 Smoke” underneath, irrespective of the EC in force (B25.12 NA)⁶. Normal Fire (B25) and Smoke rules apply except as follows:

- The Smoke counter is only removed as per A24.4, i.e. after two game turns. When it is removed:
 - the “Blaze” marker is also removed if it is in non-burnable terrain; otherwise, the player makes a Kindling DR (according to B25.13) which may lead to a terrain blaze (the “Blaze” marker is then kept in play and B25.6 applies);
 - if the blaze caused by the napalm attack does not lead to a terrain blaze, then any SW/guns in the hex individually undergo a Random SW destruction dr with a FP of 12.
- if Heavy Winds/Rain is in force, the Smoke marker has no effect other than to indicate when the napalm blaze must be removed or transformed into a terrain blaze.

STUKAS (E7.403)

The sole Dive Bomber considered by the ASL rule system, the Stuka is unique in its armament (heavier bombload, less powerful MG and RMG (See Figure 3)) and



in the manner its attacks are resolved (AA fire takes place after it has made its first attack).

Strafing

A DB can make a Strafing attack in the same manner as a FB, with one exception: it may not use its bombs during the Strafing attack.

Point attack

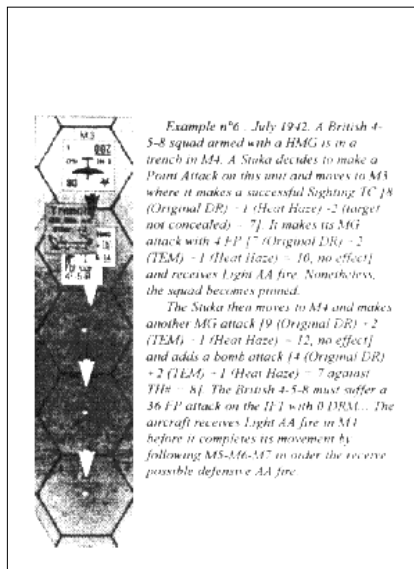
Before it undertakes a Point attack, a DB must be placed in a hex adjacent to the target hex, have LOS to that target hex and make a successful Sighting TC. The following sequence of play then applies:

- 1) MG-only attack against the units in the target hex (on the 0-6 column of the TH Table). All unbroken infantry units in the target hex are automatically pinned following that attack [EXC: fanatic, Japanese SMC, etc. (See A7.8)].
- 2) Light AA fire.
- 3) the aircraft is moved to the target hex
- 4) second attack with MG (and bombs if possible).
- 5) Light AA fire.

At the conclusion of those two attacks, the DB must keep going for 3 hexes in the same Hex Grain to receive any Light AA fire.

Bombing

Bombing can only take place at the end of a Point Attack (See above). A Stuka may not use bombs during a Strafing attack.



AA FIRE (E7.5)

Certain weapons have the capacity of attacking aerial targets (See E7.51; E7.52; footnote E20). When in AA mode, these weapons are marked with an “AA” counter

to indicate their firing mode. This counter is removed as soon as the weapon switches back to normal firing mode to attack a ground unit [EXC: Vehicular AAMG may freely attack ground and aerial targets]. Placing/removing an “AA” counter reduces by one (cumulative with other ROF reductions) the weapon’s ROF for the next firing phase⁷. Firing rules apply normally to weapons in AA mode (placement of “Prep Fire”, “Defensive First/ Final Fire” markers) with a few exceptions:

- no Residual FP.
- only 1 aerial target is subjected to each firing.
- Opportunity Fire NA [EXC: a weapon marked as Opportunity Fire may change to AA mode against an aircraft but its “Opportunity” counter is replaced with a “AA” counter].
- Fire Lane NA.
- FG NA [EXC: mandatory FG (A7.55)].
- Subsequent First Fire, Intensive/Sustained Fire NA (against any target type during that player turn).

An AA-capable weapon cannot attack an aircraft outside its LOS [EXC: Heavy AA fire (E7.52)] or from a building/pillbox. Any manoeuvre on a weapon in AA mode (i.e. (un)limbered/ pushed/ hooked up or dismantled/ portaged/ loaded/ removed/ scrounged) makes it lose that status (and its “AA” counter). An AA-capable weapon may change its firing mode (AA or normal) freely at the end of any fire phase (See Changing CA (C3.22)).

Light AA fire (E7.51)

Light AA fire takes place when enemy aircraft make their attacks, i.e. during one’s own MPH or during the enemy DFPh (See Figures 1 & 4).

Only the following may make Light AA fire attacks:

- AA Guns with IFE (EX: 3.7cm FlaK 36; C2.29),
- Infantry HMG,
- Vehicular AAMG,
- AA-capable MA/CMG (EX: M16 MGMC Halftrack; See. Chapter H notes; footnote E21).

AA guns use their IFE and Infantry MG lose their ROF. None of these weapons may attack the same target more than once in the same hex during the same turn.

Vehicles suffer the penalties of Bounding First Fire (D2.42 & D3.31) only if they are in Motion or if they have already expended MP’s during the MPH, but they are never obliged to spend 1 MP between each AA attack (C2.24).

AA fire is subject to cowering, except when directed by a leader. Nevertheless, the

latter may not apply his leadership DRM.

Resolution (E7.511)

Light AA fire is resolved on the "H Vehicle" line of the IFT. The only applicable TEM/ Hindrance are those for LV/ Smoke (See LOS Hindrance). The only applicable DRM are those corresponding to the aircraft armor (positive number inside the J; See Presentation & footnote E22) and those due to changing the CA of the AA weapon (See Case A, C5.1). The various possible results are summarised in Table 7. An DR Original of 2 may lead to a successful attack, even if the combination of FP/DRM makes it impossible. A dr is then made and its result interpreted as follows:

- 1 : aircraft destroyed.
- 2 : aircraft damaged (See Damages below).
- 3 : aircraft breaks off attack and evades.
- 4-6 : no effect.

In any case, the result of this new dr cannot be inferior to that of the original DR (EX : if the Final DR results in "aircraft damaged", do not take a dr > 2 into account).

Heavy AA fire (E7.52)

Heavy AA fire takes place during one's own PFPh or DFPh.

Final DR on IFT	Result
< Veh * Kill #	Destroyed
= Veh * Kill #	Damaged (E7.226)*
1 > Veh * Kill #	Attacker must break off and evade*

* The plane must undergo all AA fire against its hex before resolving its attack (with a +1 DRM to the TH/ IFT) which will be its last of this turn. A Damaged/ Evading aircraft still receives all Light AA fire in its current hex before making any attack, and is subject to Light AA fire until it exits the hex it last attacks or first sighted (whichever occurred last) (EXC: a Stuka making a bomb attack must extend its "flyover" another three hexes as per E7.403)

Only AA guns with no IFE (EX:

8.8cm FlaK 18) may fire Heavy AA and keep their inherent characteristics (ROF & B#). Any aircraft can be chosen as a target whether a LOS exists or not.

Resolution (E7.511)

Success depends on an unmodified DR:

- 2 : aircraft eliminated.
- 3 : aircraft damaged (See Damage below).
- 4 : the aircraft cannot attack during this player turn (place a "TP" marker on the aircraft).

The white dr indicates the number of hexspines the Gun must change (clockwise) to reach its new CA (even if it then faces a Blind Hex). If there are many aircraft in play, the target of the AA fire is determined by Random Selection (-1 drm for friendly aircraft unless they are involved in Aerial Melee (E7.22)).

Example n°7 : going back to the situation in Example n°1. The American aircraft makes 2 attacks (target hexes: CC8 & DD8) and may receive 6 light AA attacks (from Y6 to DD8). For each such attack, the only unit in position is the 4-6-7 with a HMG in CC8. The weapon's ROF falls to 0 and a single attack (with a +3 DRM) will be possible in each hex and compared with a Final TK# final of 6 (7 FP column on the IFT). The HMG is marked with "AA" counter to remind the player that the next attack on a ground unit will be made with a ROF of 2.

COMPLETE SEQUENCE OF PLAY

Some scenarios and campaign games offer both players the chance of having Air Support. This requires a new Sequence of Play that includes Aerial Combat (see Figure 4).

AERIAL COMBAT (E7.22)

Before they could harass ground

troops, pilots had to avoid enemy fighters, a perilous action if any! The following rules attempt to simulate (always quite synthetically) the battles that the RAF, the Luftwaffe and the USAF fought under the Big Top.

Dogfight

Only an undamaged FB may enter a Dogfight. In order to do so, a friendly FB counter need only be placed, during the owning player's CCPh, in a hex containing one or more enemy aircraft. The player may opt to concentrate all of one's aircraft against the same target or to spread them against many enemies.

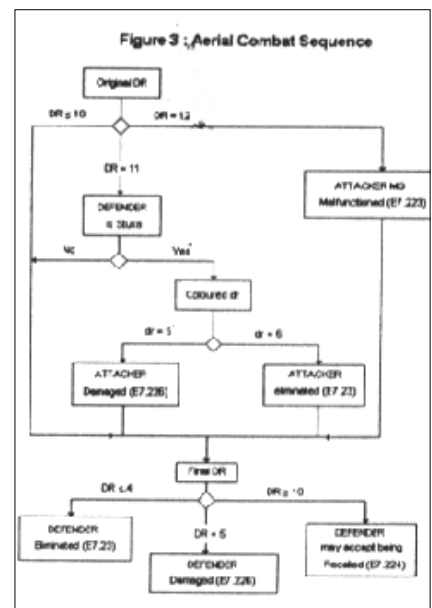
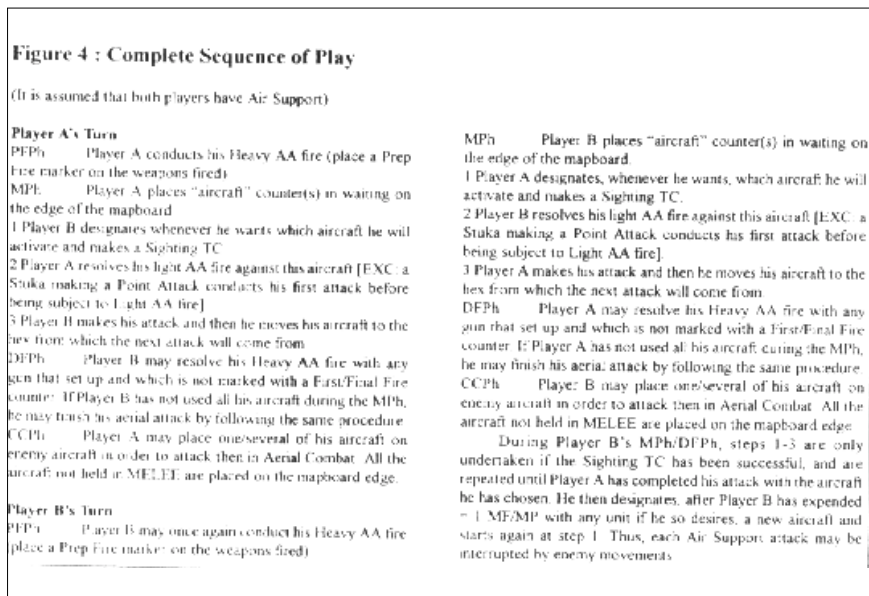
Each such stack is then marked with a "CC" counter. The following sequence of play, based on the sequential CC rules, is then applied, during each CCPh to each stack:

1) the ATTACKER resolves the attacks of all his aircraft (until they lose ROF (E7.222)).

2) the DEFENDER may reply with all his surviving aircraft.

At the end of this round, if both sides are still present in the same aerial hex, the "CC" marker is flipped over to its "MELEE" side provided:

1) at least one side has at least one undamaged FB, and



ATTACKER is DB	+1
ATTACKER has Bomb	+1
ATTACKER is Damaged	+1
DEFENDER is DB	-1
DEFENDER has Bombs	-1
DEFENDER is Damaged	-1
All DRM are cumulative	

2) this FB has a functioning MG, and
3) the owning player wishes to continue with this Aerial Combat [EXC : Recall (E7.224)].

If this is not the case, the aircraft may abandon Aerial Combat (the counters are moved to the edge of the mapboard). Aircraft held in MELEE may not undertake any other action and, during the following CCPh, must fight any FB (FB = FB according to 1 & 2 above) stacked with them [EXC: E7.223; E7.224].

Resolution (E7.221)

Before any DR, the (single) target of each aircraft must be designated (ATTACKER first). Once they have all been pre-designated, the duels are separately resolved, each with a properly modified DR (See Table 8 & Figure 3). Many events may take place during these combats:

ROF (E7.222)

ROF rules (A9.2) apply normally to aircraft MG, except that they are not used against ground units and that any further attack can be made against any aircraft involved in the same dogfight.

Malfunction (E7.223)

If the aircraft's MG malfunctions, a "MG disabled" marker is placed on the aircraft counter. It can no longer attack [EXC: bombing] and may opt to accept Recall (E7.24) at the conclusion of the CCPh [EXC: if in MELEE with a FB].

Recall (E7.224)

The aircraft may escape the MELEE at the conclusion of the CCPh but must leave the game for good.

Jettison (E7.225)

An aircraft may jettison its bombs during its MPh (even if held in MELEE) in order to get better odds during dogfights. The aircraft counter is then inverted.

Damage (E7.226)

A damaged aircraft is Recalled (E7.24) unless it is held in MELEE (place a "Wound" marker on the aircraft counter). Any already damaged aircraft that suffers further damage is eliminated (E7.23).

ELIMINATION & VP (E7.23)

The destruction of an aircraft has no influence on other units (ground or aerial). It is worth 2 VP (A26.2) to the enemy. On the other hand, an aircraft exit (voluntary or under Recall) confers no VP.

Continued from page 10, column 3

DOGFIGHTING TACTICS FOR INFANTRYMEN

AERIAL COMBAT TACTICAL ADVICE

Patrik Manlig

FROM THE PILOT'S POINT OF VIEW

Jettison

When involved in Aerial Combat, do not hesitate to jettison any bombs you may have. They cost you a +1 DRM and give your opponent a -1 DRM -1; which more or less doubles the odds that your aircraft will be eliminated and halves the odds that you will eliminate the enemy.

Sighting TC

One must learn not to attempt Sighting TC's with too many positive DRM's, even if they are for "juicy" hexes full of enemy units, especially if your plane still has a bomb. A mistaken attack occurs on a Final DR = 12. Each positive DRM dramatically multiplies the odds of a mistaken attack. Thus, through sheer greed, a player may see his own aircraft attack him. The opponent, who gains momentary control of the aircraft, will probably rush to use its (only!) bomb.

Thus, be partial to:

- non concealed targets, and their -2 DRM. Do not forget that a "?" stack moving in OG is not considered concealed for an aircraft (E7.25).

- targets that are moving or that have moved, and their -1 DRM. Do not forget that an aircraft attacks, at any time during the MPh or the DFPh, all the units, be they moving or not. You may thus use the fact that a unit is moving or has moved to get an easier Sighting TC and attack all the units in the hex (and possibly three other hexes if you do a Strafing attack).

Bomb loads as a deterrent

Bombs are extremely powerful (24, 30 or 36 FP, depending on the size) but you only get one! They can thus be a very potent deterrent but one must learn to use them to the best effect.

Remaining in a deterrent mode is easy: one only has to attack without using the bomb until a golden opportunity arises. As long as a bomb circles overhead, the enemy will see

its movement quite hampered.

Proper usage is harder: as soon as the enemy has good protection, the odds are against obtaining a hit, even during a Point Attack. For my part, I advise against bomb attacks that fail on an Original DR = 7; this means that one should attack against the Area Target Type instead of the Infantry Target Type as soon as the target benefits from a TEM = +2. Finally, an attack on the 0-6 column instead of the 7-12 column greatly increases the odds of a hit; this is why it is often preferable to use a bomb during a Point Attack instead of during a Strafing.

vs AFV

The advantage of an aircraft against an AFV is that it uses the Aerial AF, benefits from the Aerial Elevation advantage and can often attack the AFV from the Rear Target facing.

This gives very interesting MG TK#, examples of which are given in Table 9. Furthermore, Strafing allows the attack of many enemy AFV's in the same player turn if they have the misfortune of being = 4 hexes from one another and all in the same Hex Grain.

In theory, a bomb, with a Basic TK# of 12 or 16 depending on the size, may seem very potent against an AFV. In reality, it often is very difficult to get a Direct Hit and, consequently, the Final TK# is often 6 or 8. It follows that, against AFV's, a bomb is hardly more potent than a MG.

Stuka

Stukas, the sole DB's represented in ASL, have the great advantage of striking first during a Point Attack. In effect, before any AA takes place, a Stuka may attack with its MG and, whatever the attack's result, the target units are pinned!

This proves highly efficient against AA Guns: at the very least, the Gun crew will be pinned, the Gun will lose all ROF and will have its IFE FP halved. Other aircraft then have the benefit of attacking without fear.

It also allows one to automatically stop

the movement of enemy Infantry, thus slowing the arrival of reinforcements, for example.

Finally, one is never obligated to use a bomb during a Point Attack. Thus, nothing prevents a Stuka from making one such attack per game turn, as long as it is in play, whether it still has its bomb or not.

Napalm

Napalm bombs obtain hits more easily because of the -1 TH DRM specific to them. Furthermore, their attack is powerful (FP = 2410 and DRM = 0) and it leaves a +3 Smoke. Finally, if you attack once all the enemy movements are over (EX: during the DFPh), then the target Infantry will have no other choice but to voluntarily break11 and to rout away from the napalm blaze (B25.4)... leaving behind all its SW > IPC and its Guns! These weapon will be unusable for 2 game turns and have better than a 50% chance of being destroyed/malfunction during the spread of the napalm blaze to the terrain or by random destruction.

Napalm is thus very efficient for the pounding of and direct support against Infantry. If the enemy has a TEM = +2, use the Area Target Type. An aircraft often aims more for a heavy weapon than a MMC, and the resulting blaze is the same against an Area Target Type as against an Infantry Target Type.

Choosing one's attack type

Do not forget that you may choose your attack type (Strafing or Point Attack) after your first MG attack12.

Thus, if you are attacking a really important target, wait for the result of the first attack before making the decision. If a satisfactory result has been obtained, choose a Strafing Attack and take advantage of the situation to attack other enemy units. Otherwise, opt for a Point Attack and reattack the same target.

Front line

Attacking the front line with aircraft is a risky proposition because the presence of friendly MMC/vehicles = 4 hexes from the target adds a +1 DRM to the Sighting TC.

Furthermore, the enemy is often well protected along the front (concealment, fortifications, ...) and, except for Stukas and napalm, the aerial pounding of such positions has little effect.

In Summary

The general advice for ground support can be summarized as follows:

- if you must destroy AFV's, use the aircraft's MG and keep the bomb for unarmored targets;
- only Stukas and napalm are really efficient for pounding the front line and for direct support; other aircraft are more efficient in the hampering of enemy movement (preventing a defense from reorganizing, reinforcements from arriving, ...).

FROM THE GRUNT'S POINT OF VIEW

AA fire: Infantry HMG

Infantry HMG are heavily penalized when firing in AA mode (no ROF, no leadership DRM). They are thus generally more useful against ground targets than against aircraft.

If enemy aircraft are really a problem, you can increase the AA efficiency of your HMG's by forming them into FG13; which allows you to get AA FP's which are more murderous. However, outside Campaign games, it is rare that a scenario has aircraft on one side and more than 2 HMG in the other.

AA fire: AAMG

AAMG's or vehicular AA-capable MA MG's often have FP which are too weak to trouble aircraft and are thus more useful against ground targets..

AA fire: AA Guns with IFE

AA Guns with IFE, vehicular or not, are not penalized for firing AA (other than by the decrease of their ROF by one for the use of the IFE -C2.29- and for the switching to AA mode AA -E7.5-). Furthermore, they are Fast-Turreted. All this makes them quite fearsome when firing AA, even if they have to change CA.

AA fire: AA guns without IFE

Heavy AA fire is very inefficient (16.7% chance of success per shot) and diverts big calibre (> 70mm) Fast-Turreted Guns, with good ROF (often > 2) from against ground targets against which they are fearsome. Heavy AA fire should thus be avoided, unless your Guns have nothing else but aircraft to bite into.

AA fire: summary

By far, the best AA weapons are Guns

with IFE; other weapons are, in fact, more useful against ground targets.

Protecting one's AA Guns with IFE

If possible, you should protect your AA Guns with IFE by setting them up so that they have one or two obstacle hexes at their "back". This prevents them from being attacked by an aircraft "from behind" and having to traverse 180° to defend themselves.

If you have several AA weapons, set them up so that they protect each other: each one covering the "rear" of another one. Thus, no matter which comes under attack by an aircraft, there will always be another AA weapon to efficiently protect it.

Avoiding line-ups

Taking into account the possibilities of Strafing Attacks, which may attack up to four adjacent hexes in the same Hex Grain, one should avoid such line-ups of ground forces, be it during the MPH or at the conclusion of the MPH or of the APH (because enemy aircraft can attack at the start of your next MPH, before you have spent any MF/MP; and your position at the start of that next MPH will more or less be the same as that at the end of the APH).

Ω

BIRDS OF PREY

Continued from page 9

EXERCISES

In order to practice the use of this weapon, a list of scenarios using it is given below.

One side has Air Support
ASL26 - ASL39 - ASL46 - ASL71 - ASL73 - ASL74 - ASL82

Both sides have Air Support
T7 - CG RB - CG KP

FOOTNOTES

1. The level considered for the Entry hex is the higher of its Base or its Crest levels.
2. EXC: a "?" unit loses its concealment if an aircraft gets at least a PTC on the IFT when attacking it and if that unit is in the LOS of a GO enemy ground unit.
3. At the option of the ATTACKER if there are many equidistant units.
4. i.e. if the DRM = 0; 4 during a Strafing (Aerial Range = 8 hexes) and 5 during a Point Attack (Aerial Range = 6 hexes).
5. EXC: units/SW/Guns in a Deep/Shallow water hex other than a Flooded Stream.
6. EXC: Deep/Shallow water hex other than a Flooded Stream.
7. Furthermore, an Infantry HMG firing in AA mode loses its ROF; see "Light AA Fire".

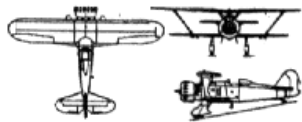
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VIEW FROM

GROUND ATTACK AIRCRAFT OF WW2

All nations made use of ground attack aircraft in WW2, although in most cases this was simply a matter of using either fighters to strafe enemy positions or light bombers to drop bombs on them. Ground support was an integral role of the Luftwaffe from its formation though and by the time of the Spanish Civil War it had developed several planes especially for the role. The lessons were eventually learned by the Allies and 1944 they had numerous close support aircraft of their own in service.

GERMANY

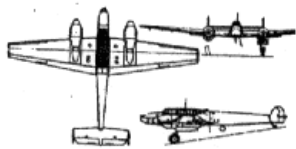


Henschel HS. 123: First flown in 1937 during the Spanish Civil War, the HS. 123 was extremely effective at making pinpoint attacks despite the lack of a radio link to the ground troops, and

proved the value of close support aircraft. Production was stopped before the war, as the JU 87 came into service, but despite this it remained in service until the end of 1944. It was particularly useful in the east where it proved to be better adapted to use than the more modern types.

TYPE: Single seat dive bomber
MAX. SPEED: 214mph
CEILING: 29,530 feet
RANGE: 530 miles

ARMAMENT: Two 7.92mm MG, plus underwing racks for up to four 110lb bombs, clusters of A-P bombs, or two 20mm cannon



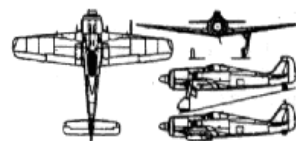
Messerschmitt Bf 110: Entering service in 1939 the Bf 110 first saw action in the Polish campaign, operating mainly in the close support role, although it was also devastating against any opposition it encountered.

It was just as effective in the Blitzkrieg

in 1940 but when it encountered RAF Spitfires and Hurricanes during the Battle of Britain it was hopelessly outclassed. Despite this it remained in production throughout the war, playing a major part in the night battles over the Reich from 1942 onwards.

TYPE: Two seat fighter
MAX. SPEED: 349mph
CEILING: 32,800 feet
RANGE: 528 miles

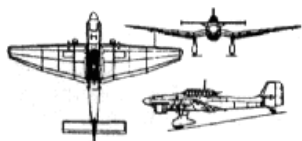
ARMAMENT: Two 20mm cannon and four 7.92mm mG, plus one rear cockpit mounted 7.92mm MG. Some models were also fitted with a centreline rack which could carry four 55lb bombs



Focke Wulf 190: The appearance of the Focke Wulf 190 came as a big shock to the RAF when it was first encountered in the skies of France in 1941. It was faster and more heavily armed than any Allied planes, and was

also tough and extremely agile, and left the Allies with something of an inferiority complex. Although widely regarded as the superior fighter, it never overtook the Messerschmitt Bf 109 as the Luftwaffe's main fighter.

TYPE: Single seat fighter bomber
MAX. SPEED: 440mph
CEILING: 32,810 feet
RANGE: 560 miles
ARMAMENT: Two 13mm MG and two 20mm wing mounted cannon and two 340mm cannon, plus one 3,986lb bomb



Junkers JU 87: One of the most feared aircraft of the early war, the Stuka was extremely effective in providing the German forces with airborne artillery support when the Luftwaffe dominated the skies. During the Battle of Britain

though losses were so heavy that it was withdrawn from the battle. It subsequently enjoyed renewed success during the early days of the battles on the Eastern front, but by late 1942 was limited to use mainly during night

operations.

In the spring of 1941 the much improved D model entered service. With its more powerful engine it could fly at speeds of up to 250mph despite carrying two wing mounted and two rear cockpit mounted MG and a 3,986lb bomb and improved armour protection. By 1944 tank busting variants equipped with 37mm cannon were also in service.

Stukas were also used by the Slovakian, Hungarian, and Romanian air forces, as well as the Italians (leading to the belief that it was being built in Italy as the Breda 201).

TYPE: Two seat dive bomber and ground attack

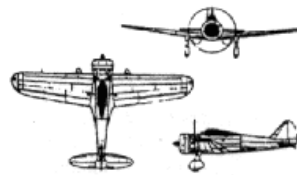
MAX. SPEED: 242mph

CEILING: 26,250 feet

RANGE: 373 miles

ARMAMENT: Two 7.92mm MG in wings plus one in rear cockpit; plus one 1,102lb centreline bomb and four 110lb wing mounted bombs

JAPAN



Nakajima Ki-27: The "Nate" was the first Japanese monoplane fighter, entering service in 1938. Although extremely manoeuvrable it paid for this in its slow speed, light armament and armour. It saw combat against the Chinese, the Russians during the 1939

Nomohan incident, and the first year of the Pacific War until it was generally replaced in service by the Ki-43.

3,399 were built.

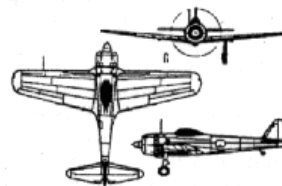
TYPE: Single seat fighter and light attack aircraft

MAX. SPEED: 286mph

CEILING: 34,400 feet

RANGE: 389 miles

ARMAMENT: Two 7.7mm Type 89 MG, plus external racks for four 55lb bombs



Nakajima Ki-43 Hayabusa: The "Oscar" was the most numerous Japanese Army aircraft, and second only in numbers to the Zero. First built in 1939, it was built in the traditional army mould of being highly manoeuvrable but poorly armoured and lightly armed. In 1942 the more

powerful II series was developed, with some armed and clipped wings, but even this version often disintegrated when hit by .50cal MG fire.

A few examples served with the French forces in Indo-China after the war.

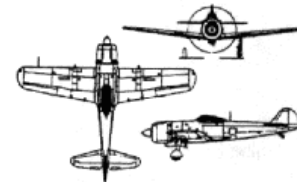
TYPE: fighter bomber

MAX. SPEED: 320mph

CEILING: 36,800 feet

RANGE: 1,060 miles

ARMAMENT: Two 12.7mm MG, plus wing racks for two 55lb bombs



Nakajima Ki-84 Hayate: Probably the best Japanese fighter of the war, the "Frank" suffered from deteriorating quality control during production. Entering service in 1944, the Ki-84 could out climb and out manoeuvre the Mustang and the Thunderbolt.

TYPE: Single seat fighter bomber

MAX. SPEED: 388mph

CEILING: 34,450 feet

RANGE: 1,025 miles

ARMAMENT: two 20mm wing mounted cannon and two fuselage mounted, plus two racks for a 55lb bomb



Aichi D3A Val: Known to the Allies as the "Val", the D3a was a tough and manoeuvrable dive bomber. D3As were used to devastating effect in the raid on Pearl Harbour, and also sank the British aircraft carrier Hermes and heavy cruisers Cornwall and Dorsetshire in 1942. The loss of skilled pilots

during 1942 and 1943 had a drastic effect on their effectiveness and production stopped in January 1944 after 816 had been built.

TYPE: Two seat carrier dive bomber
MAX. SPEED: 242mph
CEILING: 31,170 feet
RANGE: 1,131 miles
ARMAMENT: Two 7.7mm MG in wings and one in rear cockpit, plus a centreline 551lb bomb and a 66lb bomb under each wing



Yokosuka D4Y Suisei: entering service in late 1941, the Suisei (Comet) was one of the few Japanese planes to use a liquid cooled engine. This proved to have an unhappy history in carrier service and by 1943 a radial engine was fitted to the D4Y3 model. During the

last year of the war a single seat suicide attack version, the D4Y4 appeared in service, armed with some 1,764lbs of explosives.

The Allied name for the Suisei was "Judy".

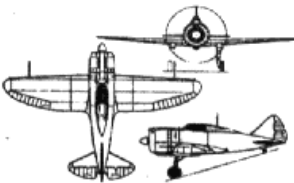
TYPE: Two seat carrier dive bomber
MAX. SPEED: 356mph
CEILING: 34,500 feet
RANGE: 749 miles
ARMAMENT: Two 7.7mm Type 97 MG above engine plus one in rear cockpit; internal bomb bay carrying a 551lb bomb, plus one 66lb bomb under each wing

ITALY



Breda ba-65: A low-wing monoplane developed from the Ba-64, the Ba-65 was intended to be a multi-role aircraft, but in the event it was only suitable as a ground attack aircraft. It first saw action in the Spanish Civil War but by World War 2 it was very vulnerable to enemy fighters. 219 were built.

TYPE: Single seat ground attack
MAX. SPEED: 269mph
CEILING: 20,790 feet
RANGE: 344 miles
ARMAMENT: Two 12.7mm MG and 2 7.7mm MG, plus one 2,200lb bomb

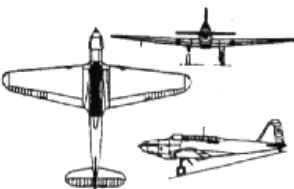


Reggiane Re-2002: The Re-2000 was essentially a copy of the Seversky P-35. Extremely manoeuvrable but under-powered, it was armed with a pair of 12.7mm MG and could carry a 441lb bomb. First flown in 1938, 170 were built, with 60 being used by Sweden and about 100 by Hungary.

Some 252 examples of the slightly more powerful Re-2001 were built from 1940 onwards for Italian use, with 150 serving as night fighters. The re-2002 entered service in late 1941 with about 50 being built; most of these served with the 5th Stormo da Assalto and were lost in Sicily and southern Italy. In September 1942 production of the Re-2005 began. Capable of speeds up to 391mph and armed with three 20mm cannon and 12 12.7mm MG, only 48 examples were built.

TYPE: Single seat fighter
MAX. SPEED: 337mph
CEILING: 36,745 feet
RANGE: 590 miles
ARMAMENT: Two 12.7mm MGs often augmented with two 7.7mm MGs, plus a 1,410lb bomb

BRITAIN

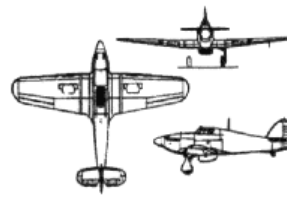


Fairey Battle: Envisaged as a replacement for the Hawker Hart and Hind light bombers of the pre-war era, the Fairey Battle formed the cornerstone of the RAF light bomber force. When the war started though it was already obsolete. It was powered by the same engine as the Hurricane despite being 60% heavier, which

made for a sluggish performance. As a result it was particularly vulnerable to enemy ground and air fire, and suffered heavy losses in use during the battle for France. Once the threat of German invasion ended the Battle was relegated to training and target towing duties.

TYPE: Three seat light bomber
MAX. SPEED: 241mph
CEILING: 25,000 feet
RANGE: 900 miles

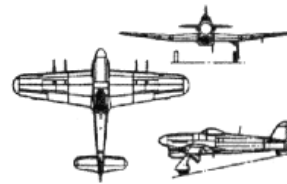
ARMAMENT: .303" MG in starboard wing, .303" MG in rear cockpit, 4 250lb bombs carried internally



Hawker Hurricane: In the early war years, the Hurricane was Britain's most numerous fighter, and it bore the brunt of the fighting in France and the Battle of Britain. Later it became an effective fighter bomber; in North Africa it was also a devastating tank destroyer when fitted with a pair of 40mm cannon.

The Hurricane was used by many Commonwealth nations, as well as Poland, Finland, Romania, and others. Nearly 3,000 Hurricanes were also transferred to the Soviet Union.

TYPE: Single seat fighter bomber
MAX. SPEED: 341mph
CEILING: 20,000 feet
RANGE: 460 miles
ARMAMENT: 4 20mm cannon in wings plus two 500lb wing mounted bombs



Hawker Typhoon: Beset with design and development difficulties, the Typhoon was intended to replace the Hurricane as an interceptor. Following its disappointing performance in this role it was soon recognised as a potentially effective ground attack aircraft. Its most famous killing ground

was the Falaise pocket.

An early operation problem of the Typhoon resembling the Focke Wulf 190 led to the famous black and white recognition stripes being painted under the Typhoon's inner wing sections.

TYPE: Single seat fighter bomber
MAX. SPEED: 405mph
CEILING: 34,000 feet
RANGE: 510 miles
ARMAMENT: 4 20mm cannon in wings plus 2 1000lb wing mounted bombs or 8 wing mounted rocket projectiles

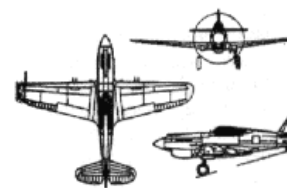


De Havilland Mosquito: Noted for its wooden construction, the Mosquito began life before the war as a light bomber. It became a versatile aircraft which was used in many roles, including ground support.

TYPE: Two seat fighter bomber
MAX. SPEED: 410mph

CEILING: 44,000 feet
RANGE: 1,860 miles
ARMAMENT: Four .303" MG and four 20mm cannon, plus 4,000lb bomb

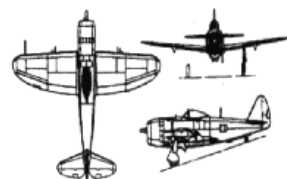
AMERICA



Curtiss P-40: Development of the Warhawk began in 1937 but because of numerous teething troubles it did not enter service until the end of 1940. Its performance was disappointing however, despite its manoeuvrability and strong construction. When an improved engine was installed performance improved but it was still outclassed by German fighters, and it was subsequently used as a serviceable fighter bomber.

The Warhawk was used by many nations, including the RAF where it was known as the Tomahawk, the Soviet Union, and the Chinese.

TYPE: Single seat fighter bomber
MAX. SPEED: 378mph
CEILING: 38,000 feet
RANGE: 340 miles
ARMAMENT: Six .50cal MG in wings plus 1 1000lb bomb under fuselage and two wing mounted 500lb bombs

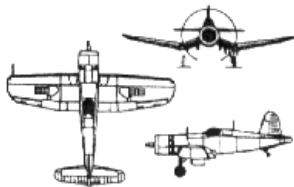


Republic P-47 Thunderbolt: The "Jug" entered service in 1943 and proved to be an effective escort for B-17 and B-24 bombers. Its value increased once it was able to fit drop tanks, and this same capability helped

turn it into a powerful fighter-bomber. It was used in large numbers in both the European and Pacific theatres.

826 Thunderbolts were delivered to the RAF from the summer of 1944, serving in India and Burma to great effect.

TYPE: Single seat fighter bomber
MAX. SPEED: 428mph
CEILING: 42,000 feet
RANGE: 475 miles
ARMAMENT: 8 .50cal MGs in wings plus 2 1000lb wing mounted bombs or 6 wing mounted rocket projectiles



TYPE: Single seat carrier based fight bomber
MAX. SPEED: 462mph
CEILING: 44,000 feet
RANGE: 1,000 miles
ARMAMENT: four 20mm cannon, plus two 1000lb bombs or eight rockets

Vought F4U Corsair: As a prototype the Corsair was the first U.S. plane to exceed 400mph, and it out-performed all other U.S. planes at the time. It first saw action with USMC land-based units in February 1943 and rapidly helped gain air supremacy against the Japanese.



Douglas SBD Dauntless: The SBD was a small aircraft, slow and vulnerable, and considered obsolete even as it entered service. Despite this it spearheaded the early offensives in the Pacific and served throughout the war. It proved to be an accurate dive-bomber.

TYPE: dive bomber
MAX. SPEED: 255mph
CEILING: 24,420 feet
RANGE: 1305 miles
ARMAMENT: Two .50cal MG and two 7.303 MG, plus one 1,650lb bomb and two 100lb bombs

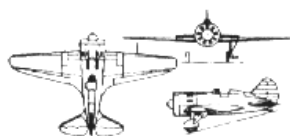


Curtiss SB2C Helldiver: Designed to combine a powerful engine and a large weapons load in a small airframe, as required for carrier operations, the SB2C was compact and dense, and its fuselage was inordinately small compared with the large wings and tail. Its performance was little better than

that of the older SBD which earned it many uncomplimentary nicknames. Nevertheless the US navy fought several major battles with it, and over 7000 were built.

TYPE: Carrier-based dive bomber
MAX. SPEED: 297mph
CEILING: 29,370 feet
RANGE: 1940 miles
ARMAMENT: Two 20mm cannon and 2 .50cal MG, plus 1,000lb of munitions

RUSSIA



Polikarpov I-16: When it first entered service in 1934, the I-16 was one of the fastest fighters in service anywhere. It came to prominence during the Spanish Civil War, where 475 were used by the Republicans, whose opponents nicknamed it "Rata" (rat). It proved effective against the Chinese

in 1939 but was hopelessly outclassed against the Germans in 1941, although it soldiered on in use until 1943.

The I-16 was also used by China.

TYPE: Single seat fighter
MAX. SPEED: 280mph
CEILING: 29,500 feet
RANGE: 500 miles
ARMAMENT: Two 7.62mm MG two 7.62mm wing mounted MG; late models could also carry 220lb of bombs externally

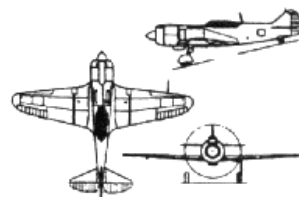


Iliouchine Il-2: Similar in concept to the British Fairey Battle, the Il-2 (Sturmovik) succeeded because it was immensely powerful, well protected, packed a fearsome punch, and was generally used only when protected by heavy fighter cover. To the soviet infantryman it was known as "the flying tank" but to their German counter-parts it was simply "schwarzer tod" (Black Death).

Sturmoviks invariably operated in pairs. Therefore, whenever Russian air support has been rolled the Russian player may disregard E7.2 and attack

with two aircraft.

TYPE: Two seat assault aircraft
MAX. SPEED: 251mph
CEILING: 19,500 feet
RANGE: 375 miles
ARMAMENT: 2 wing mounted 37mmcannon and 2 .3" wing mounted MGs plus 1 rear cockpit mounted .50cal MG, plus 200 AT bombs or 8 rocket projectiles



Lavochkin La-7: the Lavochkin laGG-3 was the poorest performer of the modern aircraft in service with the Soviet airforce in 1941. Following the German invasion one LaGG-3 was fitted with a radial engine which led to an improved performance. Designated La-5 the new machine began appearing in June 1942 and proved to be a match

for many German fighters. Around June 1943 the La-7, which was essentially a refined version of the La-5, entered service.

TYPE: Single seat fighter
MAX. SPEED: 423mph
CEILING: 34,448 feet
RANGE: 392 miles
ARMAMENT: three 20mm cannon, plus underwing racks for six rockets or two 220lb bombs.

FRANCE

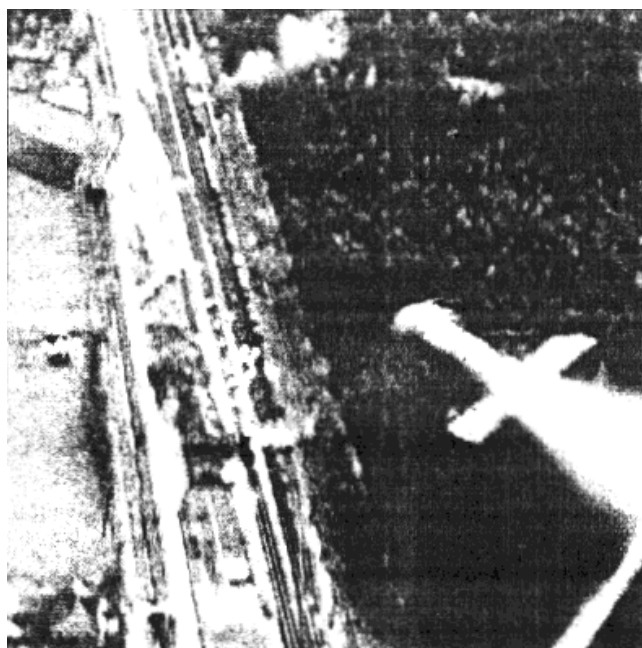


Bloch MB-152: The MB-152 was developed by Bloch from its earlier MB-150 and MB-151 series, and first flew in August 1938. At the start of the war only 85 MB-151 and MB-152 were in service but none had gun-sights and most had no propellers. By May 1940 these problems had been

overcome and some 140 MB-151 and 488 MB-152 were in service. Although capable of sustaining substantial damage the MB-152 was under-powered and against the more modern German fighters was unable to hold its own.

Following the French capitulation most remained in Vichy service, although 173 were pressed in German service - 20 of these were eventually passed on to Romania. Numbers of the MB-152 were also used by Greece.

TYPE: Single seat fighter
MAX. SPEED: 323mph
CEILING: 32,800 feet
RANGE: 373 miles
ARMAMENT: Two 20mm cannon and two 7.5mm MGs in wings



MY FIRST USE OF AIRPOWER

Tom Huntingdon

I first encountered the Air Support rules during a playing of TOT scenario #15, "Panzer-Teufel Strikes Back". The scenario is set in April, 1945, so we're talking some mean airplanes with a MG factor of 12. The German player (me) got two Stukas and two FB, each loaded with bombs. The British got two FB without bombs. Germans had two '88s (heavy AA) and one 20mm (light AA), set up a long way from the bridges. The British had three Bofors guns (light AA) set up behind and very near the bridges.

Germany victory conditions were to blow up both bridges and keep all GO British below two hexes away from the bridge debarkation point, OR wipe out all GO British on my side of the bridges. Seemed to be pretty much the same thing to me

The game gave us aircraft arrival dr modifiers, making it very likely the Stukas would show up early, the German FBs would show up late, and the British would probably show up between these two events. This is the first scenario that I remember seeing I a long time that actually might involve dogfighting.

During the Pre-Game Rule Study Phase, my opponent and I pretty much caught the essence of what airplanes were about. Before your planes can attack your opponent, you need to make a Sighting Task Check. This is based on passing an elite morale level TC (usually a DR of 8 or less). There's a bunch of modifiers, which basically say if you're moving, or in a vehicle, or in the open you can be seen pretty easily. If you're in buildings or woods the plane is probably back to somewhere close to its basic DR. By inference only, we decided that most these modifiers don't apply if you're a bridge. Too bad - seems to me that a bridge would be a BIG and rather OBVIOUS target, but that's my set of priorities, and not the Luftwaffe's.

A couple of strange concepts came out of it all, though. Firstly, MY aircraft attack only during the enemy's MPh and my DFPh. Likewise, his planes attack me on my turn. If you really gaff a Sighting TC by rolling ≥ 12 , the rule for Mistaken Attack says the ATTACKER can pick the nearest DEFENDER and have the planes shoot at him, instead. Took me a moment to realise that because this was happening during my opponent's half of the turn, that meant that HE could assign MY airplanes to attack the targets of HIS choice, namely me. Okay, add "never roll high" to my strategy with

airplanes.

Our scenario got underway. I could NOT roll my Arrival dr to save my life. My opponent rolled and got his fighters onboard on turn 3, before I ever had either of my sets of planes arrive. The ground battle had been going furiously, and we broke up for the evening at the end of my opponent's turn. His planes were on the board, and had not yet had a chance to do anything.

Now, during the Mid-Game Rule Study Phase, I tried to figure out how much trouble I was in. My airplane arrival was hinged on one dr, and if I rolled low I could get all my planes. If I rolled high I could get no planes. If I rolled mid-range, I'd get my Stukas without any fighter escort. And his fighters were there lying in wait.

What can planes do? Well, in this case they can do a few things.

- during your CCPh, you can engage enemy planes in a dogfight. If you don't then he can engage you in a dogfight.

- During his MPh/your DFPh, you can Strafe or Point Attack

- During a Point Attack, you can drop your bombs.

The bombs were beautiful. Stukas bombs (if they hit) attack on the 36+ column. My FBs bombs attack on the 30 column. Tempting to chase after his big MG fire groups instead of the bridges. But what does it take to hit a bridge?

- I'd need to pass my Sighting TC (roughly 8 or less)

- I'd need to survive his Light AA (roughly 5 or less)

- I'd need To Hit (roughly 7 or less)

- I'd need to roll a KIA (roughly 5 or less)

Hmm. In Universal Truisms this is like flipping a coin and getting four heads in a row. Ouch. And looking at the board, even though his troops were under the cover of his Light AA (i.e. within normal range), there were some fire groups that were really annoying me. Some addition ordnance might be appreciated. My boys were still a ways off, so I didn't need to worry about my close proximity giving me an additional +1 modifier to the Sighting TC. Seemed the time was right to bomb the troops now, if I got the chance.

Another rule I read closely was Dogfighting. Seeing how my attack phase was coming up first, I got to declare my

dogfights first (if I got any planes to do it with). Stukas can't pick a dogfight, and being Stukas and carrying bombs makes them rather easy to knock out of the sky. My "plan" was this; if only the Stukas came onboard, I'd hope he'd engage them in CC, and if they survived then my FBs could drop their bombs on his troops while his planes stayed tied up in CC. If all my planes came onboard at once, I'd throw away the bombs off one of my FBs, and have it single-handedly take on both of the other planes. Dogfighting is sequential - I resolve my attacks (and hopefully ROD) first, and then he shoots back. You have to roll a DR of 4 or less to shoot down a plane, a 5 damages it. I was hoping to just survive, and keep him tied up with my one plane. Then my other three planes could attack ground troops during the next phase.

Okay, we meet again. First phase, first roll, and I get all four of my airplanes. Yahoo! But before we try to bomb him into next Wednesday, I have to survive his strafing my troops while I try to push forward to the bridges.

I'd been looking at this a while, too. I had a whole lot of troops spread out on the board. A Strafing Run that he does during my MPh starts by blasting somebody that's moving, but the plane can then continue to shoot anybody (moving or not) along a four-hex path past the original target. With the number of counters I had out there, I was trying hard to think of places where Squad A could move where he wouldn't line up with Squads B and C. This wreaked havoc on how I would have liked to move - normally I move someone aggressively to take first fire, and then I can move someone even more aggressively (like adjacent to his boys to threaten CC) to take only Final Fire. Couldn't do this now - the planes would strafe through vital people lined up like pigeons on a phone line. I thought about just hugging the ground until the air battle was resolved, but I thought this would bring bad luck - it would probably resolve too quickly, I'd be left with wreckage and he'd still have Air Superiority. Move on, I thought, it won't be too bad if I'm careful.

I should have hugged the ground. A 12 FP attack (-2 for FFMO/FFNAM) is horrible to behold. I took some heavy casualties, and then he'd fly on shooting more of my troops while cackling away. Strong flanks disintegrated, we had to break out more DM counters. My AA options were

the pits, too. My light AA gun was unmanned (the crew had abandoned it to go rescue a mortar, who's crew had been done in by a sniper. [editor's note: it was worth it. The mortar later did good]). My heavy AA needed to roll a 4 or less to hit anything, and **then** you randomise which plane it hit. Seeing how most of the planes up there were mine, I decided the '88s were doing just fine by firing at ground targets, thank you very much.

On my CCPh, I jumped both his planes with my one plane, and nobody shot nobody. I'd hoped ROF might clear the skies of british, but just having him tied up left my other three planes free to wreak terrible revenge during his half of the turn.

His troops weren't moving (no -2 DRM), were in buildings (tougher to spot), and happy to sit there. I attack - first the bomb-laden FB fails his spotting roll, breaks off. Second Stuka makes his spotting roll, dives in. First attack happens before his Light AA can fire back, but a 4 FP (4! Damn, the fighters get 12!) +2 for the building doesn't scare anyone (automatically pins them though. My ground troops cheer). Before I can drop my bombs, his Light AA takes out the Stuka. I grouse that the dive-bomber was at least pointed the right direction, so the wreckage should hit still the target. We sweep the debris off the board. My last Stuka fails

his spotting roll, and breaks off. Sigh. That went well.

British turn. He's mad that he's tied into CC, but blows both his CC rolls against my one fighter. I shoot one of his down. Yahoo! I'm still free to make my bombing runs!

My turn. The ground battle has gotten close and ugly. I'm near the point where I can probably win by breaking the last of the British on my side of the bridge. What to do with the planes? He's still in good cover, now I'm close to h8im. I decide to change tactics and go for the bridges - the ground combat is going well with what I have down there, and I might just screw it up and shoot my own boys with the planes. Bridges it is.

First Stuka comes in from up the river - I picked his target hex so he wouldn't be close to my troops. I avoid a spotting DRM that way. I see the bridge, he shoots AA and misses, I hit, I roll a KIA, and part of one bridge is destroyed! He had to spin his Bofors to shoot, so the Case A +1 modifier became a +1 on his IFT shot on my plane. Aha - now I see there's no need to attack through his CA of his Light AA guns, is there? My FB tries for the other bridge from behind his AA guns - spots it, comes in to drop the bomb. The Bofors save their ammo, risking the bridge but setting up for a shot after I complete my bomb run. FB has a smaller

bomb, and is less likely to score a KIA on the bridge anyway. Bomb drops, and misses. The FB survives his flak.

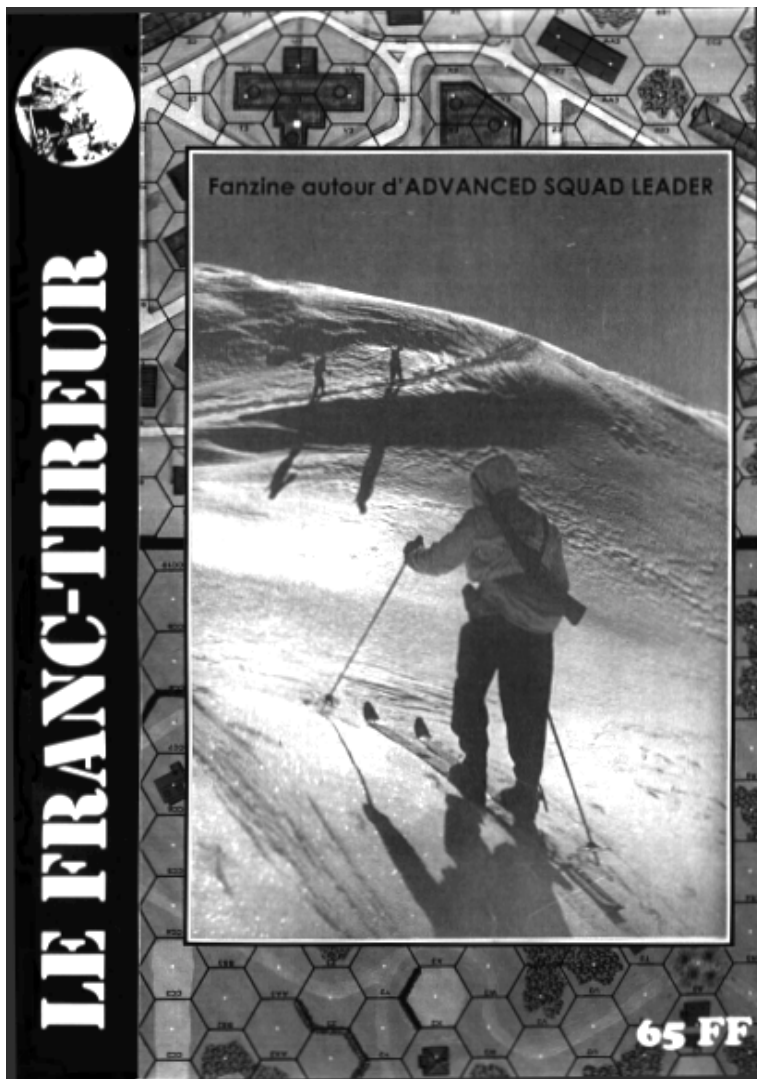
At this point, my ground troops had (mostly) won the battle and we stopped. His remaining options were desperate and extremely unlikely (charging with his cannon crew across a defended bridge), and it was getting late.

Overall, I thought the airplanes were fun to try but a little too flaky. We tried a little of everything in this scenario. They are too random to seriously rely on, and the scenario could have been wildly affected by the results of one or two die rolls. I can easily see them having no effect, or instantly devastating a pivotal defensive position. Imagine if my planes had failed to arrive for another turn. Imagine if my Stukas showed up alone, only to be instantly trashed. Imagine if my first bomb run had been an unmitigated success. I think our results were "fun" without being too out-of-control (my opponent might look at my FB ace and feel differently), but I don't know how you can balance a scenario around these wild cards. I don't know if I'd invest in them for a campaign game or not.

And that's the way it was ...

Ω





LE FRANC-TIREUR

A Magazine About ASL

Le Franc-Tireur is a French magazine dedicated to ASL. Available twice a year it contains 4 new scenarios, articles, historical analysis, news, reviews, Q&A.

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